

EPA Registration No.  
2724-427  
Vol. 1

S. Reilly

**BPPD PRAT ACTION CODING FORM**

PM 90: Janet Andersen

REGISTRANT/COMPANY NAME:

WellMark International

Fast Track: Yes ☒ No ☐

Reviewer Fast Track Team

Assigned by LATH

*Diana Hudson*

EPA REG./FILE SYMBOL 2724-127

[Note: If Fast Track, you may need to change Reviewer's Name in PRAT.]

ACTION CODE 350

(New A.I./EUP'S/Tolerances: Yes ☐ No ☐)

DATE OF APPLICATION 11/03/01

EPA RECEIVED DATE 11/13/01

BPPD RECEIVED DATE 11/29/01

SUBMISSION BARCODE 9607655

ASSIGNED IN PRAT: Yes ☒ No ☐

COMPLETED BY T. Bethea DATE 12/17/01

LOGGED IN BRATS: Yes ☒ No ☐ DATE 12/20/01 COMPLETED BY cp

RAL RECEIVED sdh DATE 1-3-02  
(RAL initials)

\*\*\*\*\* due 5-12-02 \*\*\*\*\*

**FINAL ACTION**

RESPONSE CODE: 37

RESPONSE DATE: 1-11-02

MOS: \_\_\_\_\_ (1) Cite All  
\_\_\_\_\_ (4) Not Applicable  
\_\_\_\_\_ (8) Selective

CRP	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Restricted Use:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Manufacturing Use:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Exclusive Use:	Yes <input type="checkbox"/>	No <input type="checkbox"/>

*Notification*  
*alt. brand name*

Note:

① Diacon D-30 exist for 10807-6

② Apex exist for 1839-~~86~~+6836-89)

2724-427  
S607655

## NOTIFICATION REVIEW COORDINATOR- CHECK LIST

1) BPPD Coding Form attached ?

☒ YES ☐ NO

(No- get one from front desk or create bean with PRATS. using Action code 332)

2) The following conditions must be met:

a) 8570-1 form complete including the certification statement verbatim from PR Notice 98-10.	<input checked="" type="checkbox"/>
b) ALL Changes to label are identified. Registrant should have described <u>all</u> changes to the label on 8570-1 form or letter, and preferably highlighted changes on label.	<input checked="" type="checkbox"/>
c) The changes make sense. If you have questions check with RAL, Susanne, Jim, Willie or Branch Chief.	<input checked="" type="checkbox"/>
d) Advisory statements are not modified. Advisory statements can not be made by notification	<input checked="" type="checkbox"/>
e) ALL of the requested changes to the label are covered by PR Notice 98-10 -The table on the end of 98-10 is helpful for finding pertinent sections	<input checked="" type="checkbox"/>
f) The labeling changes conform with latest approved Label Review Manual.	<input checked="" type="checkbox"/>

If any of the above conditions for item 2 are not met. :

- Inform RAL of problem.
- Provide RAL Rejection form letter.
- Log action out of PRATS.

98-10, § II. A.

✓  
§ II. N.

If all of the above conditions for item 2 are met, continue...

3) If a product name change was submitted:

- Check REFS - to make sure name not taken
- Make sure- new name does not present questionable claims (Eg. "Natural Golden Oil", or "No More Rats").- Consult Label Review Manual. (Chap. 12) See RAL if not sure.

4) If use sites are being deleted

-Contact Jim Hollins of ISB/IRSD. Use site deletions may require Federal Register notice before label can be approved.

5) If label notification is acceptable:

- a) STAMP submitted label and 8570-1 form with  
"NOTIFICATION dated \_\_\_\_\_", insert date and your initials.
- b) File notification material in file jacket.
- c) Log action out of PRATS . If no response required, enter "37" as PRAT response code
- d) Transfer jacket to SIG for coding, with attached note indicating type of notification

# EPA Label Amendment Check I

EPA File Symbol/Reg. No.: 2724-427

Application Date: 9-19-2000

RAL: Jim Downing

Check List current as of 4-5-2001

No.	Check List Item	Yes	No
1.	<b>Application Form</b> (EPA Form 8570-1) -signed & complete including package type <b>If NO, STOP!</b> Call applicant and have them correct application and resubmit.	✓	
1a.	<b>Fast-Track?</b>		✓
2.	<b>Amendment covered by PR Notice 98-10</b> (Notifications)? <b>If YES, STOP.</b> Call applicant and inform them that this submission will be converted to a notification. After closing out in PRATS, forward to Notification Review Coordinator.		✓
3.	<b>Final printed labeling</b> received for previous action? <b>If NO, Stop!</b> E-mail applicant and request final printed labeling (FPL). Let them know that nothing will happen regarding <u>this</u> action until FPL is submitted. File copy of e-mail message as record of notification. Log out of PRATS (label deficiency).	✓	
4.	<b>Data and Data Matrix</b> (EPA Form 8570-35)		
	a) using Selective Method? [If NO, (Data Matrix not required), skip to Item 5.]	✓	
	1) Complete Data Matrix. Minimum Data Matrix for registration includes: Product specific acute tox and product chemistry data, plus Efficacy data for Public Health pests claimed on label. <i>* Label now claims non-biting midges (not a Public Health pest)</i>	✓*	
	b) Adequate Product Specific data		
	c) Registered source used for active ingredient? If Yes, active ingredient is from a registered source and generic data should be satisfied by registered source. Skip to Item 5. If No, generic data is necessary.	✓	
	d) Data passed 86-5? (Data formatting PR Notice)	✓	
	e) Public copy of Matrix provided? (As required by PRN 98-5)		
5.	<b>Certification with Respect to Citation of Data</b> (EPA Form 8570-34) See 40 CFR 152.80-98 and PR Notice 98-5 [Note: If no data are required or submitted, a Certification with Respect to Citation of Data form is not needed. This is often true for minor amendments.]		
	a) Did applicant check a Method of Support?	✓	
	b) General Offer to Pay checked for Cite-all Method or Cite-all under Selective Method?	✓	
	c) Is the form signed and dated?	✓	
	d) Check form and Data Matrix; are Exclusive Use data cited from other sources?		✓
	1.) If Yes, is the required authorization letter included in application?		
6.	<b>Label(s) Review</b> <span style="float: right;"><b>Date of Label Review:</b> _____</span>		NA
a.	Label(s) agrees with current Label Review Manual and appropriate REDS	✓	
b.	Labeling from acute tox, product chemistry, and efficacy data (Public Health pests)	✓	
c.	Nominal concentration of active ingredient shown in ingredients statement	✓	
d.	Viability included as substatement of Ingredient Statement (if live microbial, e.i., cfu/gram)	NA	
e.	Storage and disposal instructions agree with container types listed on application form	✓	
f.	Unique Product Name for Same Company (Check REFS)	✓	
g.	Labeling is acceptable. Corrections or changes are NOT necessary.	✓	

☒ Primary Recipient

☐ Secondary Recipient

MRID 45113701

**NOTICE OF RECEIPT OF 6(a)(2) SUBMISSION**

**DATE:** 5-8-2000

**FROM:** Information Services Branch  
Information Resources and Services Division

**TO:** SHERYL REILLY

The 6(a)(2) Team has taken steps to get this screened by the appropriate science staff.

Screening determines the priority and timeframe for review.

As soon as screen results are received by ISB, you will be informed by your division 6(a)(2) Team representative. This information will determine instructions for review.

Please do not put this study or letter into review until you receive screen results and review instructions from your division 6(a)(2) Team representative.

If you have any questions, please contact Kathleen O'Malley. She is located in Room 224 CM2 and can be reached on 305-5411.

Primary Recipient

✓ Secondary Recipient

MRID 45113701

**NOTICE OF RECEIPT OF 6(a)(2) SUBMISSION**

DATE: 5-8-2000

FROM: Information Services Branch  
Information Resources and Services Division

TO: PM - ADAM HEYWARD  
CRM - MICHAEL NIEVES

The 6(a)(2) Team has taken steps to get this screened by the appropriate science staff.

Screening determines the priority and timeframe for review.

As soon as screen results are received by ISB, you will be informed by your division 6(a)(2) Team representative. This information will determine instructions for review.

Please do not put this study or letter into review until you receive screen results and review instructions from your division 6(a)(2) Team representative.

If you have any questions, please contact Kathleen O'Malley. She is located in Room 224 CM2 and can be reached on 305-5411.

U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs

MAY 5 2000

WELLMARK INTERNATIONAL  
1000 TOWER LANE  
SUITE 245  
BENSENVILLE, IL 60106

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your transmittal of 05/03/00. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

451137-00

**Wellmark**

May 3, 2000

Ms. Kate Bouvé  
FIFRA 6(a)(2)  
Office of Pesticide Programs (H7504C)  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Hwy.  
Arlington, VA 22202

**Subject: FIFRA 6(a)(2) REPORTING (STUDY SUBMISSION)  
FOR ZOËCON RF-342 EMULSIFIABLE CONCENTRATE  
EPA REG. NO. 2724-427**

Dear Ms. Bouvé:

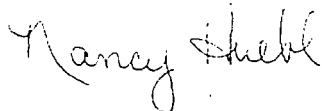
Wellmark International is submitting a primary eye irritation study in rabbits under provision of FIFRA Section 6(a)(2) for EPA Reg. No. 2724-427. Three copies of the study are enclosed along with a Transmittal Document.

In the primary eye irritation study in rabbits #SLS 3122.8, one of six rabbits in the non-wash, treated group exhibited corneal involvement up to day 21 post-dosing. The remaining five of six rabbits in the non-wash, treated group had eye irritation that cleared by day 10. In the washed, treated group, all animals had minimal eye irritation at 72 hours and no irritation at day 4. Although the study results indicate that this formulation would be a severe eye irritant (tox cat. I), it is important to note that Wellmark has yet to receive an adverse incident report for this current formulation. Additionally, this product is marketed to a specialized niche group that has many years of experience with this product's application.

This study was conducted in anticipation of methoprene end-use product reregistration data requirements. However, ultimately the study was not required for reregistration and inadvertently it was not submitted. This fact was recently discovered when reviewing the product data base in relation to a formulation amendment required for reasons unrelated to eye irritation. Wellmark will be submitting this formulation amendment with an ocular irritation study in the third quarter 2000.

Please contact me at (630) 227-6017 should you have any questions regarding this submission.

Sincerely,



Nancy Huebl  
Regulatory Label Specialist

Enclosures: SLS Study No. 3122.8 (Eye)

cc: S. Spaulding/C. Elmi/D. Crawford

**TRANSMITTAL DOCUMENT**

**SUBMITTED BY**

Wellmark International  
1000 Tower Lane  
Bensenville, Illinois 60160

**REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED**

Submission of Primary Eye Irritation study for Dianex RF-342 EC in Compliance with FIFRA  
6(a)(2) Reporting Requirements

**TRANSMITTAL DATE**

May 3, 2000

**LIST OF SUBMITTED STUDIES**

Volume 1 of 1

Primary Eye Irritation Study of Dianex RF-342 in Rabbits,  
Springborn Life Sciences, Inc. study # 3122.8, 2/13/89.  
MRID # 45113701

**COMPANY OFFICIAL:**

Nancy Huebl  
Registration Specialist

*Nancy Huebl*

**COMPANY NAME:**

Wellmark International

**COMPANY CONTACT:**

Nancy Huebl (630) 227-6017

☒ Primary Recipient  
☐ Secondary Recipient

MRID 45214407  
**NOTICE OF RECEIPT OF 6(a)(2) SUBMISSION**

DATE: 9/28/00

FROM: Information Services Branch  
Information Resources and Services Division

TO: Sheryl Reilly, BPPD

The 6(a)(2) Team has taken steps to get this screened by the appropriate science staff.

Screening determines the priority and timeframe for review.

As soon as screen results are received by ISB, you will be informed by your division 6(a)(2) Team representative. This information will determine instructions for review.

Please do not put this study or letter into review until you receive screen results and review instructions from your division 6(a)(2) Team representative.

If you have any questions, please contact Kathleen O'Malley. She is located in Room 224 CM2 and can be reached on 305-5411.

Kathleen O'Mally 5-5411

methoprene 6(a)(2) studies  
primary eye irritation

Zoecon EC

2724-427

814

MRID 45113701

status?

review

label changes - 30 days

revised label changed

10/13

Called Kathleen to inform her  
about this amendment - formulation  
change due to the submitted 6(a)(2)  
data (see above).

DP BARCODE: D272819

CASE: 004629  
SUBMISSION: S580294

DATA PACKAGE RECORD  
BEAN SHEET

DATE: 02/20/01  
Page 1 of 1

\* \* \* CASE/SUBMISSION INFORMATION \* \* \*

CASE TYPE: REGISTRATION ACTION: 405 6(A)(2) ADVERSE DATA  
CHEMICALS: 105401 Methoprene (ANSI) 32.8000%  
ID#: 002724-00427 ZOECON RF-342 EMULSIFIABLE CONCENTRATE Label amendment.  
COMPANY: 002724 WELLMARK INTERNATIONAL  
PRODUCT MANAGER: 90 JANET ANDERSEN 703-308-8128 ROOM: CS1 5TH FL  
PM TEAM REVIEWER: JIM DOWNING 703-308-9071 ROOM: CS1  
RECEIVED DATE: 05/16/00 DUE OUT DATE: 07/25/00

\* \* \* DATA PACKAGE INFORMATION \* \* \*

DP BARCODE: 272819 EXPEDITE: N DATE SENT: 02/20/01 DATE RET.: / /  
CHEMICAL: 105401 Methoprene (ANSI)  
DP TYPE: 001

	CSF: Y		LABEL: Y	
ASSIGNED TO	DATE	IN	DATE	OUT
DIV : BPPD	/	/	/	/
BRAN: BPPD-IO	/	/	/	/
SECT: IO	/	/	/	/
REVR :	/	/	/	/
CONTR:	/	/	/	/

ADMIN DUE DATE: 05/31/01  
NEGOT DATE: 05/31/01  
PROJ DATE: / /

\* \* \* DATA REVIEW INSTRUCTIONS \* \* \*

Freshteh: This amendment is to change the formula (remove an offending inert - eye irritation) and change the label, adding mushroom culture, stored product insects in cereal grains, grain sorghum, corn, birdseed and peanuts, plus use against flies and midges in Waste Water Treatment Facilities.

Product chemistry, acute tox data and efficacy data is submitted to support the amendment.

Please review the data to see that it supports the new formulation and amended label (new use sites).

Thanks, Jim

\* \* \* DATA PACKAGE EVALUATION \* \* \*

No evaluation is written for this data package

\* \* \* ADDITIONAL DATA PACKAGES FOR THIS SUBMISSION \* \* \*

DP BC	BRANCH/SECTION	DATE OUT	DUE BACK	INS	CSF	LABEL
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ZOECON RF-342 <sup>[Optional text]</sup> Emulsifiable Concentrate  
RF-9811 EC

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator for the Control of

[Insect Pests in Tobacco Processing and Storage Facilities]

[to Prevent the Emergence of Adult Sciarid Flies In Mushroom Culture]

[Stored Product Insects in Cereal Grains, Grain Sorghum (Milo), Corn (except Sweet Corn and Popcorn), Birdseed, and Peanuts]

[to Prevent the Emergence of Adult Filter Flies and Midges]

**ACTIVE INGREDIENT:**

(S)-Methoprene (CAS #65733-16-6) ..... 33.6%

**OTHER INGREDIENTS\*:** ..... 66.4%

Total: ..... 100.0%

\*Contains petroleum distillates

This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

KEEP OUT OF REACH OF CHILDREN

**CAUTION**

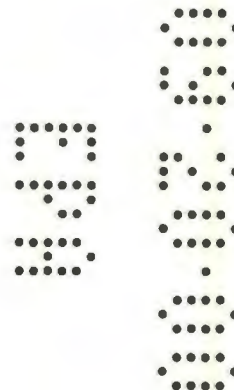
See Back Panel for Additional Precautionary Statements

EPA Reg. No. 2724-427

EPA Est. No.

NET CONTENTS:

proposed  
label



## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If swallowed	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [phone number] for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

(Include WPS for APEX Mushroom Use pattern)

### **[Personal Protective Equipment (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.]

### **Engineering Controls Statements:**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

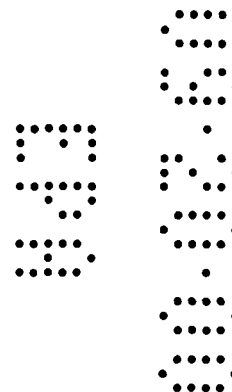
**User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS:** [This product is toxic to aquatic dipteran. Using it in a manner other than that described by the label could result in harm to non-target aquatic invertebrates]. Do not contaminate water when disposing of rinsate or equipment washwaters.

[Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.]



### [AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

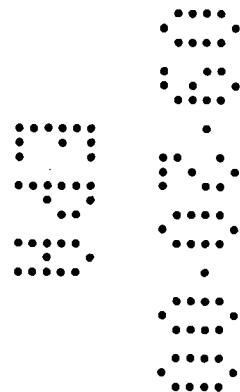
Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils)
- Shoes plus socks

Do not apply this product through any type of irrigation system.]



(Directions for Use for RF-9811 EC [DIANEX]-Stored Tobacco Products)

**INTRODUCTION:** RF-9811 EC is an emulsifiable formulation of the insect growth regulator, (S)-methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. RF-9811 EC, when used according to label directions, controls the following insects:

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply RF-9811 EC as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply RF-9811 EC at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of RF-9811 EC to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add RF-9811 EC, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

(Directions for Use for DIACON -Stored Product Insects)

**PRODUCT INFORMATION:** (S)-methoprene, the active ingredient in DIACON®, protects stored grains from damaging insects by interfering with the normal process of insect development. Unlike traditional pesticides, DIACON is not an adulticide, but its residual activity prevents the development of larvae into adults. DIACON, when used according to the label directions, prevents regeneration of the following insects: almond moth, Indian meal moth, cigarette beetle, lesser grain borer, sawtooth grain beetle, merchant grain beetle, red flour beetle, and confused flour beetle. Existing insect populations should be treated before applying DIACON for residual protection.

If stored grain insect populations exceed 2 insects per 1 kg sample during storage, fumigate to avoid grain-damage from existing insects. Refer to FGIS regulations for stored grain for more information on sampling and insect thresholds.

**Stored Grain:** For protection of stored food, feed, oil and seed grains against stored grain insects - for optimum results, thoroughly clean and treat grain storage areas prior to storage of grain. DIACON may also be applied as a top-dressing to stored products that have already been placed into bins or storage areas. Use the rate of 2.5 - 5 ppm for this type of application. Avoid flooding of top-dress area.

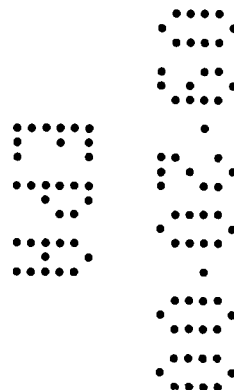
#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**GENERAL DIRECTIONS FOR TREATMENT OF GRAIN BEING STORED:** Dilute DIACON with water or FDA-approved food grade oils\* or soybean oil and apply to the moving grain stream as a coarse spray to give a deposit of 5 ppm of DIACON on the grain. Use a final water solution volume of 5 gallons of liquid per 1000 bushels of grain and 10 gallons of liquid per 1000 bushels of rice. Final spray volumes of oil solutions should be applied at the oil manufacturer's rates. Agitation of water or oil solutions is necessary.

For maximum residual and efficacy, use the rate of 5 ppm. For shorter term residual, lower rates may apply, but do not use rates less than 1 ppm.

DIACON is to be applied in solution in accordance with the general directions to stored products at the following rates per 1000 bushels to provide treatment with 5 ppm concentrations of DIACON. When using lower rates, use the appropriate amount of formulation to achieve the desired application rate:



	5 ppm		2.5 ppm		1 ppm	
	fl oz	ml	fl oz	ml	fl oz	ml
Wheat	7.70	228	4.0	114	1.54	46
Corn	7.10	212	3.5	106	1.42	43
Grain sorghum (Milo)	7.10	212	3.5	106	1.42	43
Barley	6.10	182	3.0	91	1.22	37
Rice	5.70	170	3.0	85	1.10	34
Oats	4.10	121	2.0	61	0.80	25
Peanuts*	3.85	115	2.0	60	0.80	24

\*For peanuts, use water solution only

#### USE PRECAUTIONS:

- Apply DIACON grain protectant only to grain of known treatment history, apply no more than once per crop.
- Check spray equipment calibration regularly to insure proper application rates.
- Add the measured amount of DIACON to a spray tank partially filled with water or mineral oil, mix and complete filling with recommended quantity of carrier.
- Use diluted spray solution within 48 hours of mixing. Agitate before each use.
- Avoid application at extremely dusty sites.

DIACON may also be used as a fogging concentrate or surface spray for the treatment of warehouses, silos, storage bins or other stored commodity areas. For application of DIACON as a fogging or space spray, use the following directions.

**Application with Cold Aerosol Generators:** Apply DIACON as a mist or aerosol.

Dilute with water or oil as required following the instructions of the spray equipment manufacturer. Apply DIACON at the rate of 1 ml per 1000 square feet of surface area or 1 ml per 10 cu ft. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of DIACON to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add DIACON, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

(Directions for Use for APEX – Mushrooms)

(S)-methoprene, the active ingredient in APEX® insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of (S)-methoprene does not result in immediate insect kill, it interferes with the normal process of insect development. APEX will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions, fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best overall results. After treatment with APEX, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than 2 weeks after treatment to assess the full benefit of APEX.

**METHOD, RATE, AND TIMING OF APPLICATION:** For best results, APEX should be incorporated in the mushroom growing medium.

Follow either **METHOD A, METHOD B, or METHOD C**  
Application Instructions.

**A. INCORPORATE IN CASING AT TIME OF CASING**

Apply APEX at the rate of 5½ fluid ounces per 1000 sq ft (fl oz/1000 sq ft). Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

**B. INCORPORATE IN COMPOST AT TIME OF SPAWNING AND IN CASING  
AT TIME OF PLACEMENT OF CASING LAYER**

**In Compost:** Apply APEX at the rate of 5½ fl oz/1000 sq ft in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

**In Casing:** Apply APEX at the rate of 2¼ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT  
TIME OF PLACEMENT OF CASING LAYER**

For those crops that have a 16-day or longer spawn run, a split application can be used.

**First Application, on compost:** Apply APEX 12-13 days after spawning. Drench APEX evenly on the surface at the rate of 2¾ fl oz/1000 sq ft in adequate water for even distribution.

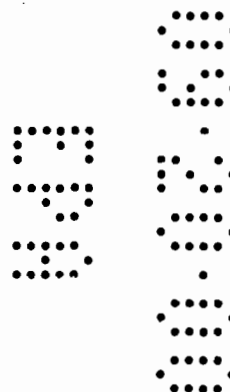
**Second Application, in casing:** Apply APEX at the rate of 2¾ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**MIXING AND HANDLING INSTRUCTIONS**

1. Add the measured amount of APEX to a spray tank partially filled with water, mix, and complete filling with recommended quantity of water.
2. Use diluted spray solution within 48 hours of mixing. Agitate before each use.

### **EFFECT ON MUSHROOMS**

In most cases, treatment with APEX has a beneficial effect on mushroom yield through control of damaging sciarid fly larvae. Due to the widely differing practices followed in mushroom culture, the user should conduct test treatments on small plots to determine that reduced crop yields will not occur under his own cultural conditions.



Directions for Use for midges/filter flies

**DIRECTIONS FOR USE:**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**MIXING AND HANDLING INSTRUCTIONS:**

Partially fill spray container with water; then add the recommended amount of RF-9811 EC, agitate, and complete filling. Agitate mildly during application. Agitation can be accomplished by use of recirculation pump, mixer, air pump, or other suitable equipment.

**RECOMMENDED APPLICATIONS**

**Waste Water Treatment Facility Pests:** Use RF-9811 EC in trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water treatment facilities where midges, filter flies, and other nuisance aquatic insect pests are a problem.

**What to Expect in Waste Water Treatment Facilities**

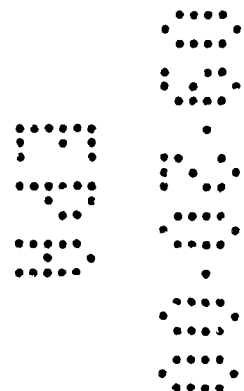
**Continuous Flow Sewage (waste water)**

In order to achieve effective results, RF-9811 EC must be applied daily for at least 2 weeks. If applications are not made on a continuous basis, erratic results may occur. Following initial applications of RF-9811 EC, a gradual reduction in the number of adult pests will be seen over approximately a 1 week period. Reduction in adult populations will be very noticeable within a 2 week period following continuous application. Due to varying conditions or heavy infestations, a longer period may be necessary for control. Since the mode of action of RF-9811 EC is to prevent adult emergence, existing adults and pupa present at the time of initial application will complete their life cycle.

As adult suppression peaks, use a maintenance rate of RF-9811 EC for continuous protection from population rebound. However, if application of RF-9811 EC is halted following population suppression, rebound of the population can be expected within 2 to 3 weeks after stopping application. For continuous suppression throughout the pest season, continue applications of RF-9811 EC

**Sludge or Solid Waste Applications**

For solid waste applications, use the initial high rate. The dilution should be applied until the drying beds have been filled. Following filling of the drying beds, halt the dilution application. Make applications of the dilution at the influent side as the sludge or solids enter into the drying beds. Application of RF-9811 EC to solids will prevent the emergence of adult insect pests thereby keeping infestations under control.



## METHODS OF APPLICATION

**Waste Water Treatment Facilities:** Dilute RF-9811 EC with water prior to use. Apply RF-9811 EC by using a metering pump, drip bucket, or other suitable equipment. Metering pumps are the most efficient and accurate method of application. The application method will influence appropriate product dilution. Depending on the dosage rate, prepare desired volume of dilution to apply over a 24 hour period (day tank), or in cases of sludge beds, applied until the beds have been filled. When using delivery devices, it is important to calibrate the device to deliver the required amount of RF-9811 EC over a 24 hour period. Mix sufficient material in advance to provide for applications longer than 24 hours. Metering pumps that are capable of delivering material for more than 24 hours are highly recommended.

## APPLICATION RATE

### **Waste Water Treatment Pests:**

**Initial Application** - 2.5 to 3.0 ounces of RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side over a 24 hour period.

**Maintenance Rate** - 1.5 to 2.0 ounces RF-9811 EC per 1 million gallons of sewage waste water in sufficient water to apply uniformly at the influent side over a 24 hour period.

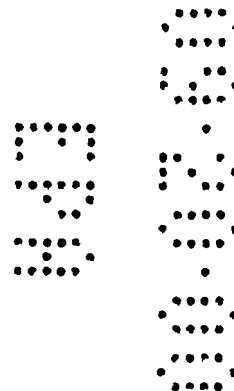
To achieve effective results, use initial application rates on a daily basis for 2 weeks, without interruption. Use sufficient water/RF-9811 EC to achieve uniform application to sewage (waste water) over a 24 hour period. Make application of the dilution at the influent side of the particular area to be treated.]

Maintain initial rate of application for 2 weeks and then for continued effectiveness, follow the directions for the maintenance rate.

## APPLICATION SITES

**Waste Water Treatment Facilities:** Make applications of RF-9811 EC to sewage as it flows into trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water facilities where pests are a problem.

Make RF-9811 EC applications as the sewage enters (influent areas) the targeted processing area. Failure to add the material at the influent side may result in erratic results.



**STORAGE and DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. **Storage** - Store in a cool dry place. **Pesticide Disposal** - Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal - [Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

#### **WARRANTY AND CONDITIONS OF SALE**

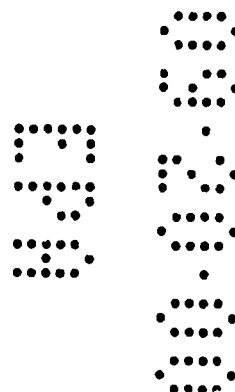
Seller makes no warranty, express or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

APEX®, DIACON®, and DIANEX®, are registered trademarks of Wellmark International.

Wellmark International  
Schaumburg IL 60173

Made in USA

For information or in case of an emergency, call 1-800-XXX-XXXX.  
Visit our Web site: [web site address]



## BPPD WORK ASSIGNMENT #69

ORNL IAG #DW 89938591-01

Date: 02-21-01

Date Mailed: 02-21-01

1. Oak Ridge National Laboratory (ORNL) shall independently review the studies identified below and prepare for each study a Data Evaluation Record (DER). In addition to its scientific expertise, the ORNL shall use the appropriate OPP Test Guidelines, science policy documents, and other guidelines and materials provided to ORNL for the purpose of training, orientation and guidance concerning the preparation of DERs under the IAG.

2. For technical/scientific questions that cannot be resolved by the ORNL without input from BPPD science staff, the ORNL shall contact: Freshteh Toghrol. MRIDs and Studies for this work assignment are respectfully as follows:

EPA Registration No. 002724-00427. Product Name: Zoecon RF-342 Emulsifiable Concentrate.  
Company: Wellmark International.

Table 1.

DP Barcode	MRID#	Study Type	Estimated Hours
D272819/002724-00427	452144-01	Physical/Chemical Properties	4
D272819/002724-00427	452144-02	Product Chemistry/Analytical Methods	4
D272819/002724-00427	452144-03	Product Chemistry/Manufacturing Process	4
D272819/002724-00427	452144-04	Acute Oral Toxicity	4
D272819/002724-00427	452144-05	Acute Dermal Toxicity	4
D272819/002724-00427	452144-06	Primary Skin Irritation	4
D272819/002724-00427	452144-07	Acute Eye Irritation	4
D272819/002724-00427	452144-08	Hypersensitivity in Guinea Pigs	4
D272819/002724-00427	452144-09	Acute Inhalation/Rats	4
D272819/002724-00427	452144-10	Efficacy Against Mushroom Sciarid Flies	6
D272819/002724-00427	452144-11	Efficacy to Control Beetles in Stored Wheat	6
D272819/002724-00427	452144-12	Effective Filter Fly Control	6
Total Estimated Cost			54

3. Transmittal dates for the First Draft of the DERs to BPPD shall conform generally to the "Working Days" specified in ORNL Proposal #1824-G018-A1. The Work Assignment Manager will review the proposed Transmittal and Due Dates and negotiate a mutually acceptable schedule for EPA and ORNL for delivering the first draft of the DERs. For research reports that do not include estimated hours, please notify the Work Assignment Manager with any questions or hour estimates.

4. The ORNL shall conduct its routing Quality Assurance/Quality Control reviews as specified in its QA/QC plan for the IAG.

F. Toghrol

Freshteh Toghrol

2/21/01

Date



**(S)-METHOPRENE TECHNICAL**

Registration number: 002724- 00442

Please report any suspected data errors to **USEPA/OPP**.View USEPA/OPP Label Images (tiff format) for this Product: [Click Here](#)

Company: WELLMARK INTERNATIONAL

1100 EAST WOODFIELD ROAD, SUITE 500  
SCHAUMBURG, IL 60173  
USA  
Contact: STEVE SPAULDING  
Contact Phone: 6302276074

Status: Active

Approval date: 05/10/1989

Cancel or Transfer date: //

Existing Stocks date: //

Cancel reason:

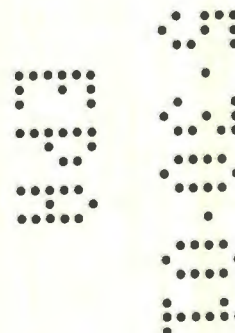
EPA Product manager: Sheryl Reilly -- (703)308-8269

Chemical(s):

94.0000 % of (105402)

Chemical Names:(Common Name, Synonym, Trade Names)

- CAS REG. NO. 65733-16-6
- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, 1-METHYLETHYL ESTER, (S-(E,E))-
- **ISOPROPYL (2E,4E,7S)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE**
- METHOPRENE



**USEPA/OPP PC Code: 105402****Common Name:**

- METHOPRENE
- CAS REG. NO. 65733-16-6

**Synonym(s):**

- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, 1-METHYLETHYL ESTER, (S-(E,E))-

**Scientific Name(s):**

- ISOPROPYL (2E,4E,7S)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE

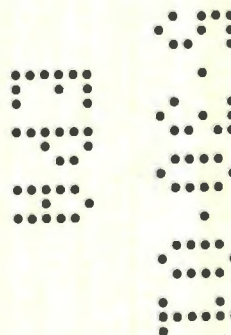
**CAS Numbers**

- CAS REG. NO. 65733-16-6
- 0065733166

---

List all products for this chemical or, just the active products.

List Unique Registrants (Active/Inactive)



**METHOPRENE TECHNICAL**

Registration number: 002724- 00441

Please report any suspected data errors to **USEPA/OPP** .  
View USEPA/OPP Label Images (tiff format) for this Product: [Click Here](#)

Company: WELLMARK INTERNATIONAL

1100 EAST WOODFIELD ROAD, SUITE 500  
SCHAUMBURG, IL 60173  
USA  
Contact: STEVE SPAULDING  
Contact Phone: 6302276074

Status: Active  
Approval date: 10/14/1988  
Cancel or Transfer date: //  
Existing Stocks date: //  
Cancel reason:

EPA Product manager: Sheryl Reilly -- (703)308-8269  
Chemical(s):

90.0000 % of (105401)

Chemical Names:(Common Name, Synonym, Trade Names)

- ALTOSID BRIQUETS
- ALTOSID CP10
- ALTOSID SR 10
- CAS REG. NO. 40596-69-8
- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, 1-METHYLETHYL ESTER, (E,E)-
- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, ISOPROPYL ESTER, (E,E)-
- ENT-70460
- ISOPROPYL (2E,4E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- ISOPROPYL (E,E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- KABAT
- MANTA
- METHOPRENE (ANSI)
- METHYLETHYL (E,E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- ZR-515

**ZOECON RF-342 EMULSIFIABLE CONCENTRATE**

Registration number: 002724- 00427

Please report any suspected data errors to **USEPA/OPP** .  
View USEPA/OPP Label Images (tiff format) for this Product: [Click Here](#)

Company: WELLMARK INTERNATIONAL

1100 EAST WOODFIELD ROAD, SUITE 500  
SCHAUMBURG, IL 60173  
USA  
Contact: STEVE SPAULDING  
Contact Phone: 6302276074

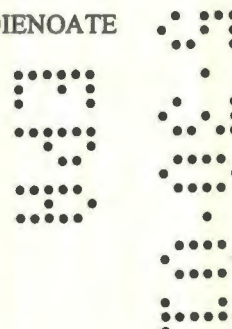
Status: Active  
Approval date: 12/06/1989  
Cancel or Transfer date: //  
Existing Stocks date: //  
Cancel reason:

EPA Product manager: Sheryl Reilly -- (703)308-8269  
Chemical(s):

32.8000 % of (105401)

Chemical Names:(Common Name, Synonym, Trade Names)

- ALTOSID BRIQUETS
- ALTOSID CP10
- ALTOSID SR 10



**ZOECON RF-342 EMULSIFIABLE CONCENTRATE**

Registration number: 002724- 00427

Please report any suspected data errors to **USEPA/OPP**.View USEPA/OPP Label Images (tiff format) for this Product: [Click Here](#)

Company: WELLMARK INTERNATIONAL

1100 EAST WOODFIELD ROAD, SUITE 500  
SCHAUMBURG, IL 60173  
USA  
Contact: STEVE SPAULDING  
Contact Phone: 6302276074

Status: Active

Approval date: 12/06/1989

Cancel or Transfer date: //

Existing Stocks date: //

Cancel reason:

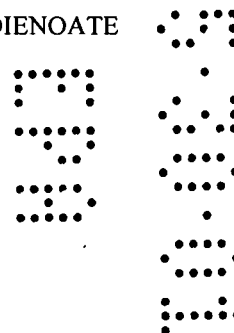
EPA Product manager: Sheryl Reilly -- (703)308-8269

Chemical(s):

32.8000 % of (105401)

Chemical Names:(Common Name, Synonym, Trade Names)

- ALTOSID BRIQUETS
- ALTOSID CP10
- ALTOSID SR 10
- CAS REG. NO. 40596-69-8
- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, 1-METHYLETHYL ESTER, (E,E)-
- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, ISOPROPYL ESTER, (E,E)-
- ENT-70460
- ISOPROPYL (2E,4E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- ISOPROPYL (E,E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- KABAT
- MANTA
- METHOPRENE (ANSI)
- METHYLETHYL (E,E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- ZR-515



**PC Code: 105401****Common Name:**

- METHOPRENE (ANSI)
- CAS REG. NO. 40596-69-8

**Synonym(s):**

- METHYLETHYL (E,E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, 1-METHYLETHYL ESTER, (E,E)-
- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, ISOPROPYL ESTER, (E,E)-
- ISOPROPYL (E,E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE

**Trade Name(s):**

- ALTOSID BRIQUETS
- ZR-515
- ENT-70460
- ALTOSID SR 10
- KABAT
- MANTA
- ALTOSID CP10

**Scientific Name(s):**

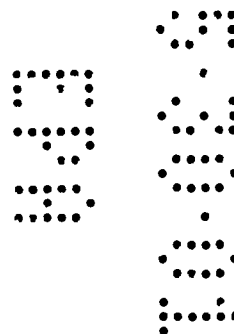
- ISOPROPYL (2E,4E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE

**CAS Numbers**

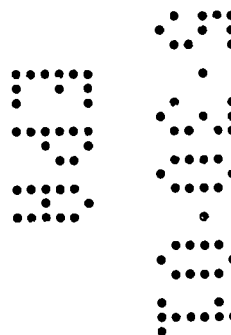
- CAS REG. NO. 40596-69-8
- 0040596698

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List all products for this chemical or, just the active products.



- CAS REG. NO. 40596-69-8
- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, 1-METHYLETHYL ESTER, (E,E)-
- DODECADIENOIC ACID, 11-METHOXY-3,7,11-TRIMETHYL-, ISOPROPYL ESTER, (E,E)-
- ENT-70460
- ISOPROPYL (2E,4E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- ISOPROPYL (E,E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- KABAT
- MANTA
- METHOPRENE (ANSI)
- METHYLETHYL (E,E)-11-METHOXY-3,7,11-TRIMETHYL-2,4-DODECADIENOATE
- ZR-515



**BPPD PRAT ACTION CODING FORM**

PM 90: Janet Andersen

REGISTRANT/COMPANY NAME:

Weil Mark

Fast Track: Yes ☐ No ☐

Reviewer Jim Downing

Assigned by SK

EPA REG./FILE SYMBOL 2724-427

[Note: If Fast Track, you may  
need to change Reviewer's  
Name in PRAT.]

ACTION CODE 668

(New A.I./EUP'S/Tolerances: Yes ☐ No ☒

DATE OF APPLICATION 10/8/01

*Final Printed labels*

EPA RECEIVED DATE 10/10/01

PM RECEIVED DATE 10/11/01

SUBMISSION BARCODE 5530588

ASSIGNED IN PRAT: Yes ☒ No ☐

COMPLETED BY SK DATE 10/15/01

LOGGED IN BRATS: Yes ☒ No ☐ DATE 10/16/01 cp



**FINAL ACTION**

RESPONSE CODE: \_\_\_\_\_

RESPONSE DATE: \_\_\_\_\_

MOS: \_\_\_\_\_ (1) Cite All  
          \_\_\_\_\_ (4) Not Applicable  
          \_\_\_\_\_ (8) Selective

CRP                      Yes ☐    No ☐  
Restricted Use:        Yes ☐    No ☐  
Manufacturing Use:    Yes ☐    No ☐  
Exclusive Use:        Yes ☐    No ☐

# BPPD PRAT ACTION CODING FORM

PM 90: Janet Andersen

REVIEWER: Jim Downing  
(ASSIGNED BY: SKR)

EPA REG./FILE SYMBOL 2724-427

*Request For 6(a)(2)  
Screen*

ACTION CODE 405

(NEW a.i./EUPs/Tolerances: Yes        /No       )

SUBMISSION BARCODE 8580491

DATE ON APPLICATION 5/23/00

EPA RECEIVED DATE 5/24/00

PM RECEIVED DATE 5/31/00

ASSIGNED IN PRAT: YES        NO       

COMPLETED BY: T. Bethel DATE: 6/5/00

=====

## FINAL ACTION

Response Code                     

Response Date:                     

MOS:                      (1) Cite-All  
                     (4) Not Applicable  
                     (8) Selective

CRP: Yes        No       

Restricted Use: Yes        No       

Manufacturing Use: Yes        No       

Exclusive Use: Yes        No       

*Roy - would you please  
do a review of the  
eye study for Jim?*

*Thanks -*

*Sheryl*

**SECTION:**

**CHEN**

## EFFICACY

## PRECAUTIONARY LABELING

**BY:**

# JACKET COOLING FORM

**REGISTRATION #/FILE SYMBOL**

2724 - UET

[illegible]

File in  
Jacket

MAR 12 2004

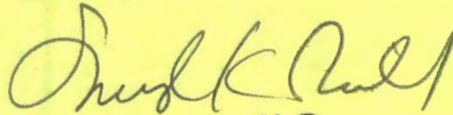
Nancy Huebl  
Wellmark International  
1100 East Woodfield Road, Suite 500  
Schaumburg, IL 60173

Sub: RF-9811-EC  
EPA Reg. No 2724-427  
Your application dated July 21, 2003 to revise the directions for use and to add new  
uses (stored commodities) to the label as covered under the existing tolerance  
exemption

Dear Ms. Huebl:

The labeling amendment referred to above submitted in connection with registration  
under FIFRA, as amended, is acceptable. A stamped copy of the label is enclosed for your  
records.

Sincerely,



Sheryl K. Reilly, Ph.D.

Chief

Biochemical Pesticides Branch

Biopesticides and Pollution Prevention Division

7511C

## CONCURRENCES

SYMBOL ▶	7511C							
SURNAME ▶	Hank							
DATE ▶	3/11/04							



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

MAR 12 2004

Nancy Huebl  
Wellmark International  
1100 East Woodfield Road, Suite 500  
Schaumburg, IL 60173

Sub: RF-9811-EC  
EPA Reg. No 2724-427  
Your application dated July 21, 2003 to revise the directions for use and to add new uses (stored commodities) to the label as covered under the existing tolerance exemption

Dear Ms. Huebl:

The labeling amendment referred to above submitted in connection with registration under FIFRA, as amended, is acceptable. A stamped copy of the label is enclosed for your records.

Sincerely,

A handwritten signature in cursive script, reading "Sheryl K. Reilly".

Sheryl K. Reilly, Ph.D.

Chief

Biochemical Pesticides Branch

Biopesticides and Pollution Prevention Division

7511C

**MASTER LABEL**

[Optional text]

RF-9811 EC

Alternate Brand Names: DIACON® II (**sublabel B**); RIZACON™ (**sublabel B**);  
APEX® (**sublabel C**); STRIKE® Ultra Professional Midge Control (**sublabel D**);  
DIANEX® Emulsifiable Concentrate for Tobacco (**sublabel A**)

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco  
Moth]

An Insect Growth Regulator

[to Control Insect Pests in Tobacco Processing and Storage Facilities]

[to Prevent the Emergence of Adult Sciarid Flies In Mushroom Culture]

[To Control Stored Product Insects in Stored Food Commodities, such as Cereal  
Grains, Grain Sorghum (Milo), Corn, Popcorn, Birdseed, Peanuts, Sunflower  
Seeds]

[to control insect pests in seeds]

[to Prevent the Emergence of Adult Filter Flies and Non-biting Midges in Waste  
Water Treatment Facilities]

**ACTIVE INGREDIENT:**

(S)-Methoprene (CAS #65733-16-6)

33.6%

**OTHER INGREDIENTS\*:**

66.4%

Total:

100.0%

\*Contains petroleum distillates

This product contains 2.5 lbs/gallon (288 grams/liter) (S)-methoprene active  
ingredient

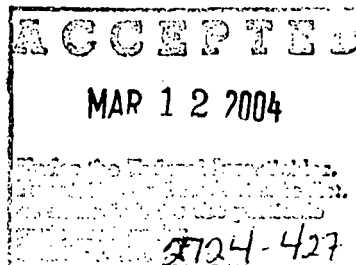
KEEP OUT OF REACH OF CHILDREN

**CAUTION**

See Back Panel for Additional Precautionary Statements

EPA Reg. No. 2724-427

NET CONTENTS: 1 liter (33.8 fl oz)  
2.5 liters (.66 gal)



EPA Est. No.

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If swallowed	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [phone number] for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

(Include WPS for APEX Mushroom Use pattern)

### **[Personal Protective Equipment(PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.]

### **[Engineering Controls Statements:**

When handlers use closed systems or enclosed cabs in a manner that meets the

requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.]

**[IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.]

**[User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.]

**ENVIRONMENTAL HAZARDS:** (For Sublabel D only) Do not contaminate water when disposing of rinsate or equipment washwaters. (Sublabels A/B/C are indoor products – no Environmental Hazards statement required.)

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

[Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.]

#### [AGRICULTURAL USE REQUIREMENTS]

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils)
- Shoes plus socks

Do not apply this product through any type of irrigation system.]

## **SUBLABEL A**

(Directions for Use for RF-9811 EC [DIANEX]-Stored Tobacco Products)

**INTRODUCTION:** RF-9811 EC is an emulsifiable formulation of the insect growth regulator, (S)-methoprene. It is designed for use in aerosol generators and as a concentrate for use as an aqueous spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. RF-9811 EC, when used according to label directions, controls these and other insect pests:

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Aerosol Generators:** Apply RF-9811 EC as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply RF-9811 EC at the rate of 1 ml per 1,000 square feet as a surface treatment. For fogging applications, use 3 ml per 10,000 cubic feet.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before re-entry. Repeat application as required.

**Application as an Aqueous Spray:** To prepare a diluted spray solution, partially fill the mixing container with water, add 1 ml of RF-9811 EC, mix, and complete filling with a total of 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low-pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Use diluted spray solution within 72 hours of mixing. Agitate before each use. Repeat application as required.

**SUBLABEL B**

(Directions for Use for DIACON -Stored Product Insects)

**PRODUCT INFORMATION:** (S)-methoprene, the active ingredient in DIACON®, protects stored grains from damaging insects by interfering with the normal process of insect development. Unlike traditional pesticides, DIACON is not an adulticide, but its residual activity prevents the development of larvae into adults. DIACON, when used according to the label directions, prevents regeneration of these and other insect pests: almond moth, Indian meal moth, cigarette beetle, lesser grain borer, sawtooth grain beetle, merchant grain beetle, red flour beetle, and confused flour beetle. Treat existing insect populations with an adulticide before applying DIACON for residual protection.

Apply DIACON to any food commodity (including but not limited to: cereal grains, corn, sunflower, canola, popcorn, wheat, spices, sorghum, rice, cocoa, peanuts, oats, and millet) for control of insect larvae. DIACON may also be used to treat pet food, animal feedstuffs, birdseed, and cotton hulls. DIACON may be applied to seed stock. Treated commodities may be processed within 24 hours following an application.

If stored grain insect populations exceed 2 insects per 1 kg sample during storage, fumigate to avoid grain-damage from existing insects. Refer to Federal Grain Inspection Service regulations for stored grain for more information on sampling and insect thresholds.

**Stored Commodities:** For protection of stored food, grain, animal feed, seeds used for oil, and seed stock against stored product insects - for optimum results, thoroughly clean and treat storage areas prior to storing commodities. DIACON may also be applied as a top-dressing to stored products that have been placed into bins or storage areas. For top-dressing applications, spray or fog the bin headspace paying particular attention to the top of the commodity mass, beams, ceilings, and rafters. Thorough coverage is essential. For surface treatments, apply 1 ml (1/30 oz) of DIACON per 1,000 square feet; or for space spray, apply 3 ml (1/10 oz) per 10,000 cubic feet in sufficient diluent to provide adequate coverage. Do not flood top-dress area.

**GENERAL DIRECTIONS FOR TREATMENT OF GRAIN BEING STORED:** Dilute DIACON in water, FDA-approved food grade oils\* or soybean oil and apply to the moving grain stream as a uniform coarse spray. Final water or oil dilution volume is 5 gallons of liquid per 1,000 bushels of grain and 10 gallons of liquid per 1,000 bushels of rice. Lower volumes of diluent may be used but, it is important to assure that the commodity mass is uniformly treated. Apply final spray volumes of oil solutions at the oil manufacturer's label application rates. Agitate water or oil solutions.

A range of rates for different commodities is provided for flexibility during varying storage periods and conditions. For maximum residual, use higher rates; the lowest application rate offers shorter residual for commodities stored  $\leq 6$  months.

Apply DIACON in solution in accordance with the general directions, to stored products at the following rates per 1,000 bushels:

#### APPLICATION RATES

COMMODITY	fl oz	ml	fl oz	ml	fl oz	ml	fl oz	ml
Wheat	14	420	7	210	3.5	105	1.75	52
Corn	14	420	7	210	3.5	105	1.75	52
Sorghum (milo)	14	420	7	210	3.5	105	1.75	52
Barley	12	360	6	180	3.0	90	1.50	45
Rice	12	360	6	180	3.0	90	1.50	45
Oats	8	240	4	120	2.0	60	1.00	30
Peanuts*	8	240	4	120	2.0	60	1.00	30
Sunflower	8	240	4	120	2.0	60	1.00	30

\*For peanuts, use water solution only

To determine application rates for other commodities, contact your distributor or Wellmark International.

#### USE NOTES

- Apply DIACON grain protectant only to grain of known treatment history.
- Check spray equipment calibration regularly to insure proper application rates.
- Add the measured amount of DIACON to a spray tank partially filled with water or oil, mix, and complete filling with specified quantity of carrier.
- Use diluted spray solution within 72 hours of mixing. Agitate before each use.
- Clean up extremely dusty sites prior to application.
- DIACON may be used in metering systems in conjunction with dust-controlling oils. Follow the equipment and oil manufacturers' directions; ensure that the label rate of DIACON is applied uniformly.

DIACON may also be used as a fogging concentrate or surface spray for the treatment of stored product pests and other insect pests infesting warehouses, silos, storage bins or other stored commodity areas. DIACON may also be applied in food processing, food service, food preparation, and food handling establishments including, mills, bakeries, restaurants, taverns, industrial buildings, breweries, candy processing, pet food production, grocery stores, modes of transportation (rail cars, ships, and trucks), cereal processing and bottling facilities. In addition to treating raw commodities and associated processing facilities, DIACON may be applied to packaged, canned, and bottled foodstuffs, as well as associated packaging such as boxes, liners, and pallets. For application of DIACON as a fogging or space spray, use the following directions.

**Application with Aerosol Generators:** Apply DIACON as a mist or aerosol. Dilute with water or oil as required following the instructions of the spray equipment manufacturer. Apply DIACON at the rate of 1 ml (1/30 oz) per 1,000 square feet of surface area or 3 ml (1/10 oz) per 10,000 cubic feet. Use appropriate spray equipment to achieve uniform coverage.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before re-entry. Repeat application as required.

**Application as an Aqueous Spray:** To prepare a diluted spray solution, partially fill the mixing container with water, add 1 ml (1/30 oz) of DIACON, mix, and complete filling with a total of 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low-pressure sprayer typically used for indoor applications. Treat all areas that may harbor insect pests. Use diluted spray solution within 72 hours of mixing. Agitate before each use. Repeat application as required.

When tank mixing DIACON with conventional adulticides, the more stringent label will apply. DIACON may also be used or mixed with diatomaceous earth or dust-controlling oils.

## **SUBLABEL C**

(Directions for Use for APEX – Mushrooms)

(S)-methoprene, the active ingredient in APEX® insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of (S)-methoprene does not result in immediate insect kill; it interferes with the normal process of insect development. APEX will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions, fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best overall results. After treatment with APEX, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than 2 weeks after treatment to assess the full benefit of APEX.

**METHOD, RATE, AND TIMING OF APPLICATION:** For best results, incorporate APEX in the mushroom growing medium.

Follow either **METHOD A, METHOD B, METHOD C, OR METHOD D** Application Instructions.

### **A. INCORPORATE IN CASING AT TIME OF CASING**

Apply APEX at the rate of 5½ fluid ounces per 1,000 sq ft. Apply evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

### **B. INCORPORATE IN COMPOST AT TIME OF SPAWNING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

**In Compost:** Apply APEX at the rate of 5½ fl oz/1,000 sq ft in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

**In Casing:** Apply APEX at the rate of 2¼ fl oz/1,000 sq ft. Apply evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

### **C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

For those crops that have a 16-day or longer spawn run, use a split application.

**First Application, on compost:** Apply APEX 12-13 days after spawning. Drench APEX evenly on the surface at the rate of 2¾ fl oz/1,000 sq ft in adequate water for even distribution.

**Second Application, in casing:** Apply APEX at the rate of 2¾ fl oz/1,000 sq ft. Apply evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**D. INCORPORATE IN CASING AT TIME OF CASING FOLLOWED BY A  
SURFACE APPLICATION PRIOR TO FIRST BREAK OF MUSHROOMS**

**First Application, in casing:** Apply 5½ fl. oz. APEX per 1,000 sq ft in adequate water for even distribution and mechanically mix into the casing material prior to the casing operation.

**Second Application, on casing surface just prior to first break:** Apply 2¾ fl. oz. APEX per 1,000 square feet in adequate water for even distribution as a surface drench prior to first break of mushrooms.

**MIXING AND HANDLING INSTRUCTIONS**

1. Add the measured amount of APEX to a spray tank partially filled with water, mix, and complete filling with specified quantity of water.

1. Use diluted spray solution within 72 hours of mixing. Agitate before each use.

**EFFECT ON MUSHROOMS**

In most cases, treatment with APEX has a beneficial effect on mushroom yield, through control of damaging sciarid fly larvae. The user can determine if reduced crop yields will occur under his own cultural conditions by conducting test treatments on small plots.

## **SUBLABEL D**

Directions for Use for non-biting midges/filter flies

### **INTRODUCTION:**

RF-9811 EC is a unique product that controls filter flies (*Psychoda* spp.), non-biting midges (*Chironomidae*), and other nuisance aquatic insect species infesting waste water treatment facilities. RF-9811 EC contains an insect growth regulator (IGR) that is effective on the developing stages of insect pests.

RF-9811 EC does not kill adults but affects the larval stages as they grow and develop. RF-9811 EC stops the formation of pupae of insect pests, thereby eliminating adult populations.

RF-9811 EC stops the cycle of reproduction, keeping pest infestations under control. Continued use of the product prevents these pests from rebounding into unmanageable infestations.

### **MIXING AND HANDLING INSTRUCTIONS:**

Partially fill spray container with water; then add the specified amount of RF-9811 EC, agitate, and complete filling with water. Agitate mildly during application. To agitate use recirculation pump, mixer, air pump, or other suitable equipment.

### **USE APPLICATIONS**

**Waste Water Treatment Facility Pests:** Use RF-9811 EC in trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water treatment facilities where non-biting midges, filter flies, and other nuisance aquatic insect pests are a problem.

#### **What to Expect in Waste Water Treatment Facilities**

##### **Continuous Flow Sewage (waste water)**

In order to achieve effective results, apply RF-9811 EC daily for 10 days. If applications are not made on a continuous basis, erratic results may occur. Following initial applications of RF-9811 EC, a gradual reduction in the number of adult pests will be seen over approximately a 1 week period. Reduction in adult populations will be very noticeable within a 2 week period following continuous application. Due to varying conditions or heavy infestations, a longer period may be necessary to achieve control. Since the mode of action of RF-9811 EC is to prevent adult emergence, existing adults and pupae present at the time of initial application will complete their life cycle.

If application of RF-9811 EC is halted following population suppression, rebound of the population can be expected within 2 to 3 weeks after stopping application. For continuous suppression throughout the pest season, continue applications of RF-9811 EC.

### **Sludge or Solid Waste Applications**

For solid waste applications, use 3 ounces per million gallons of sludge or solids . Apply dilution until the drying beds have been filled. Following filling of the drying beds, halt the application. Apply the dilution at the influent side as the sludge or solids enter into the drying beds. Application of RF-9811 EC to solids will prevent the emergence of adult insect pests thereby keeping infestations under control.

### **METHODS OF APPLICATION**

**Waste Water Treatment Facilities:** Dilute RF-9811 EC with water prior to use. Apply RF-9811 EC by using a metering pump, drip bucket, or other suitable equipment. Metering pumps are the most efficient and accurate method of application. The application method will influence appropriate product dilution. Prepare the desired volume of dilution to apply over a 6-8 hour period , or in cases of sludge beds, apply until the beds have been filled. When using delivery devices, it is important to calibrate the device to deliver the required amount of RF-9811 EC over a 6-8 hour period.

### **APPLICATION RATE**

#### **Waste Water Treatment Pests:**

**Initial Application** –Apply 3.0 ounces of RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side .

**Application to Waste Water – Trickling Filter:** Apply 3 ounces of RF-9811 EC per 1 million gallons of sewage [waste water] in sufficient water to uniformly apply the material. Apply at times of low periods of flow (typically evening through early morning hours) for 6-8 hours. Discontinue treatment during peak flow periods and repeat applications the following day during the low flow period. Continue this application method for 10 days or until suppression of pests is achieved. Repeat the application every 15 days or as necessary to control pests.

**D. INCORPORATE IN CASING AT TIME OF CASING FOLLOWED BY A  
SURFACE APPLICATION PRIOR TO FIRST BREAK OF MUSHROOMS**

**First Application, in casing:** Apply 5½ fl. oz. APEX per 1,000 sq ft in adequate water for even distribution and mechanically mix into the casing material prior to the casing operation.

**Second Application, on casing surface just prior to first break:** Apply 2¾ fl. oz. APEX per 1,000 square feet in adequate water for even distribution as a surface drench prior to first break of mushrooms.

**MIXING AND HANDLING INSTRUCTIONS**

1. Add the measured amount of APEX to a spray tank partially filled with water, mix, and complete filling with specified quantity of water.
1. Use diluted spray solution within 72 hours of mixing. Agitate before each use.

**EFFECT ON MUSHROOMS**

In most cases, treatment with APEX has a beneficial effect on mushroom yield through control of damaging sciarid fly larvae. The user can determine if reduced crop yields will occur under his own cultural conditions by conducting test treatments on small plots.

Oral IV  
Dermal III  
inhalation IV  
eye IV

Primary Dermal II

See Revised Label  
Need electronic version of comments

BPB LABEL REVIEW TEAM COMMENT SHEET

Product Name/EPA No./Application date: Zoexon RF-342 Emulsifiable concentrate / 2724-112 / 7/21/03

Amendment Type:

(1) Ingredient Statement/Net Contents/Address/EPA Reg. No./KOROC/Signal Word:

- net contents blank
- It is preferred that address be on front panel

(2) First Aid Statements:

Registrant revised "If Swallow"; is this acceptable?  
sdh  
1-29-04

(3) Precautionary Statements:

(4) WPS/PPE/Ag Use Requirement/User Safety Recommendation/Non-Ag Use:

(5) Environmental Hazards/Physical/Chemical Hazards:

Delete the present label statement and replace with ones listed on back.

(6) Directions for Use:

See attached label for comments

LRT-Comments

(7) Storage and Disposal:

(8) Warranty Statement:

Review: These instructions must be blocked using solid lines to clearly set it apart from the use directions

(10) Additional Information/Final Printed labeling submitted?

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is toxic to ~~[fish]~~ ~~[fish and aquatic invertebrates]~~ ~~[oysters/shrimp]~~ ~~[fish, aquatic organisms, oysters and shrimp]~~. Drift and runoff may be hazardous to aquatic organisms in waters adjacent to treated areas.

Submitted in response to Agency  
Label Review Team Review & subsequent  
meeting w/ S. Spaulding (Holtz/Rally) on 2/4/04

Label Review Sheet

**FILENAME:** g:\regulatory\LABELS\  
CAHSPEC\02724427\  
amend 9811 add racs w  
epa comments 204  
**PRODUCT:** RF9811 EC  
**APPROVED:** Submitted 7/03

**COVERSHEET  
UPDATE:** February 2004  
**EPA REG. NO.:** 2724-427  
**SUPERSEDES:** 11/09/01

**OVERVIEW:** Label amendment to add stored food commodities to DIACON section (based on 6/11/03(S)-Methoprene tolerance exemption – all tolerances revoked), clarify use directions for DIANEX/DIACON/waste water pests sections, included directions for additional application method on APEX/waste water pests sections

Page #	Description of Major Changes
1 ok	Per EPA comments: added "Master Label" header, and identified sublabels for appropriate alternate brand names Revised stored product pests claim to include stored food commodities (based on 6/11/03 (S)-Methoprene tolerance exemption – all tolerances revoked) and added claim for seed pests "Per unit volume of active ingredient" revised based on specific gravity Per EPA comment: Net Contents – added specific figures
3 ok	Per EPA comment: Environmental Hazards – Sublabels A/B/C are indoor use pattern therefore, no Environmental Hazards statement required. Sublabel D – This is a waste water treatment use pattern therefore a "Do not apply to water..." statement not applicable. Per EPA comment: Moved Directions for Use heading and "It is a violation..." statement to precede WPS language and Ag Use box
DIANEX section	
5 ok	Per EPA comments: added header – Sublabel A Moved Directions for Use heading and "It is a violation..." statement to page 3 Directions for Use –reworded for clarity, Mixing Instructions incorporated into "Application as an Aqueous Spray"
DIACON section	

Weilmark response

6-8	<p><b>Per EPA comments: Per EPA comments: added header – Sublabel B</b>  <b>Moved Directions for Use heading and “It is a violation...” statement to page 3</b>  <b>In General Directions for Treatment of Grain Being Stored paragraph, in second sentence, removed word “Suggested”</b>  <b>“Use Precautions” changed to “Use Notes”</b></p> <p>Directions for Use – Reworded for clarity  Include stored food commodities (based on 6/11/03 (S)-Methoprene tolerance exemption – all tolerances revoked)  Application Rate table – added commodities and proportionately expanded  Added food processing sites (based on 6/11/03 (S)-Methoprene tolerance exemption – all tolerances revoked)  Mixing Instructions incorporated into “Application as an Aqueous Spray”  Added tank mixing text</p>
APEX section	
9-10	<p><b>Per EPA comments: Per EPA comments: added header – Sublabel C</b>  <b>In Method, Rate and Timing of Application section, added “...or Method D” to “Follow either Method A, Method B, Method C...” sentence</b></p> <p>Directions for Use – additional application method</p>
Waste water treatment facility pests – non-biting midges/filter flies	
11-13	<p><b>Per EPA comments: Per EPA comments: added header – Sublabel D</b>  <b>Moved Directions for Use heading and “It is a violation...” statement to page 3</b></p> <p>Added Introduction paragraph to explain how product works  Directions for Use: reworded for clarity  Additional directions for application via trickling filter  – deleted maintenance rate</p>
13	<b>Per EPA comment: Storage/Disposal put in box format</b>

# MASTER LABEL

[Optional text]

RF-9811 EC

Sublabel  
A  
Alternate Brand Names: DIACON® II; RIZACON™, APEX®; STRIKE® Ultra Professional Midge Control; DIANEX® Emulsifiable Concentrate for Tobacco

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator

[to Control Insect Pests in Tobacco Processing and Storage Facilities]

[to Prevent the Emergence of Adult Sciariid Flies In Mushroom Culture]

[To Control Stored Product Insects in **Stored Food Commodities, such as** Cereal Grains, Grain Sorghum (Milo), Corn, ~~(except Sweet Corn and~~ Popcorn), Birdseed, ~~and~~ Peanuts, **Sunflower Seeds**]

**[to control insect pests in seeds]**

[to Prevent the Emergence of Adult Filter Flies and Non-biting Midges in Waste Water Treatment Facilities]

## ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6)..... 33.6%

**OTHER INGREDIENTS\*:** ..... 66.4%

Total: ..... 100.0%

\*Contains petroleum distillates

This product contains 2.5 lbs/gallon (~~300-288~~ grams/liter) (S)-methoprene active ingredient

KEEP OUT OF REACH OF CHILDREN

## CAUTION

See Back Panel for Additional Precautionary Statements

EPA Reg. No. 2724-427

EPA Est. No.

NET CONTENTS:

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If swallowed	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [phone number] for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

(Include WPS for APEX Mushroom Use pattern)

### **[Personal Protective Equipment (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.]

### **[Engineering Controls Statements:**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.]

**[IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.]

**[User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.]

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

[Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.]

#### **[AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils)
- Shoes plus socks

( Do not apply this product through any type of irrigation system.]

Sublabel

(Directions for Use for RF-9811 EC [DIANEX]-Stored Tobacco Products)

**INTRODUCTION:** RF-9811 EC is an emulsifiable formulation of the insect growth regulator, (S)-methoprene. It is designed for use in ~~cold~~-aerosol generators and as a concentrate for **use as** an aqueous ~~emulsive~~ spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. RF-9811 EC, when used according to label directions, controls **these and other following** insects **pests**:

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold-Aerosol Generators:** Apply RF-9811 EC as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply RF-9811 EC at the rate of 1 ml per 1,000 square feet of ~~surface area~~ **as a surface treatment**. **For fogging applications, use 3 ml per 10,000 cubic feet.** ~~Use spray equipment to achieve uniform treatment.~~

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before **re-entry**. Repeat application as required.

**Application as an Aqueous Spray:** ~~To P~~prepare a diluted spray solution, **by partially fill the mixing container with water, adding 1 ml of RF-9811 EC, to mix, and complete filling with a total of 1 gallon of water.** Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low-pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. **Use diluted spray solution within 72 hours of mixing. Agitate before each use.** Repeat application as required.

**Mixing Instructions:** ~~Partially fill the mixing container with water, add RF-9811 EC, mix and complete filling with quantity of water specified above. Use diluted spray solution within 24 hours of mixing. Agitate before each use.~~

Sublabel B

(Directions for Use for DIACON -Stored Product Insects)

**PRODUCT INFORMATION:** (S)-methoprene, the active ingredient in DIACON®, protects stored grains from damaging insects by interfering with the normal process of insect development. Unlike traditional pesticides, DIACON is not an adulticide, but its residual activity prevents the development of larvae into adults. DIACON, when used according to the label directions, prevents regeneration of these and other following insects **pests:** almond moth, Indian meal moth, cigarette beetle, lesser grain borer, sawtooth grain beetle, merchant grain beetle, red flour beetle, and confused flour beetle. Treat existing insect populations with an adulticide before applying DIACON for residual protection.

Apply DIACON to any food commodity (including but not limited to: cereal grains, corn, sunflower, canola, popcorn, wheat, spices, sorghum, rice, cocoa, peanuts, oats, and millet) for control of insect larvae. DIACON may also be used to treat pet food, animal feedstuffs, birdseed, and cotton hulls. DIACON may be applied to seed stock. Treated commodities may be processed within 24 hours following an application.

If stored grain insect populations exceed 2 insects per 1 kg sample during storage, fumigate to avoid grain-damage from existing insects. Refer to Federal Grain Inspection Service regulations for stored grain for more information on sampling and insect thresholds.

**Stored Commodities Grain:** For protection of stored food, grain, animal feed, seeds used for oil, and seed ~~grains-stock~~ against stored **product grain**-insects - for optimum results, thoroughly clean and treat **grain**-storage areas prior to storing ~~grain~~ **commodities**. DIACON may also be applied as a top-dressing to stored products that have ~~already~~ been placed into bins or storage areas. ~~Use the rate of 2.5-5 ppm for this type of application.~~ For topdressing applications, spray or fog the bin headspace paying particular attention to the top of the commodity mass, beams, ceilings, and rafters. Thorough coverage is essential. For surface treatments, apply 1 ml (1/30 oz) of DIACON per 1,000 square feet; or for space spray, apply 3 ml (1/10 oz) per 10,000 cubic feet in sufficient diluent to provide adequate coverage. Do not flood top-dress area.

#### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**GENERAL DIRECTIONS FOR TREATMENT OF GRAIN BEING STORED:** Dilute DIACON ~~with-in~~ water, ~~or~~ FDA-approved food grade oils\* or soybean oil and apply to the moving grain stream as a **uniform** coarse spray ~~to give a deposit of 5 ppm of DIACON on the grain.~~ ~~Use a suggested final water or oil dilution solution volume of is~~ 5 gallons of liquid per 1,000 bushels of grain and 10 gallons of liquid per 1,000 bushels of rice. **Lower volumes of diluent may be used but, it is important to assure that the commodity mass is uniformly treated.** Apply final spray volumes of oil solutions at the oil manufacturer's label application rates. ~~Agitation of water or oil solutions is necessary.~~

A range of rates for different commodities is provided for flexibility during varying storage periods and conditions. For maximum residual ~~and efficacy~~, use the higher rates; the lowest application rate offers shorter residual for commodities stored  $\leq 6$  months of 5 ppm. For shorter term residual, lower rates may apply, but do not use rates less than 1 ppm.

Apply DIACON ~~is to be applied~~ in solution in accordance with the general directions, to stored products at the following rates per 1,000 bushels: ~~to provide treatment with 5 ppm concentrations of DIACON. When using lower rates, use the appropriate amount of formulation to achieve the desired application rate:~~

	5 ppm		2.5 ppm		1 ppm	
	fl oz	ml	fl oz	ml	fl oz	ml
Wheat	7.70	228	4.0	114	1.54	46
Corn	7.10	212	3.5	106	1.42	43
Grain sorghum (Milo)	7.10	212	3.5	106	1.42	43
Barley	6.10	182	3.0	91	1.22	37
Rice	5.70	170	3.0	85	1.10	34
Oats	4.10	121	2.0	61	0.80	25
Peanuts*	3.85	115	2.0	60	0.80	24

\*For peanuts, use water solution only

#### APPLICATION RATES

COMMODITY	fl oz	ml	fl oz	ml	fl oz	ml	fl oz	ml
Wheat	14	420	7	210	3.5	105	1.75	52
Corn	14	420	7	210	3.5	105	1.75	52
Sorghum (milo)	14	420	7	210	3.5	105	1.75	52
Barley	12	360	6	180	3.0	90	1.50	45
Rice	12	360	6	180	3.0	90	1.50	45
Oats	8	240	4	120	2.0	60	1.00	30
Peanuts*	8	240	4	120	2.0	60	1.00	30
Sunflower	8	240	4	120	2.0	60	1.00	30

\*For peanuts, use water solution only

To determine application rates for other commodities, contact your distributor or Wellmark International.

#### USE PRECAUTIONS:

- Apply DIACON grain protectant only to grain of known treatment history, ~~apply no more than once per crop.~~
- Check spray equipment calibration regularly to insure proper application rates.
- Add the measured amount of DIACON to a spray tank partially filled with water or mineral oil, mix, and complete filling with specified quantity of carrier.
- Use diluted spray solution within 48-72 hours of mixing. Agitate before each use.
- ~~Do not treat at~~ Clean up extremely dusty sites prior to application.
- DIACON may be used in metering systems in conjunction with dust-controlling oils. Follow the equipment and oil manufacturers' directions; ensure that the label rate of DIACON is applied uniformly.

DIACON may also be used as a fogging concentrate or surface spray for the treatment of stored product pests and other insect pests infesting warehouses, silos, storage bins or other stored commodity areas. DIACON may also be applied in food processing, food service, food preparation, and food handling establishments including, mills, bakeries, restaurants, taverns, industrial buildings, breweries, candy processing, pet food production, grocery stores, modes of transportation (rail cars, ships, and trucks), cereal processing and bottling facilities. In addition to treating raw commodities and associated processing facilities, DIACON may be applied to packaged, canned, and bottled foodstuffs, as well as associated packaging such as boxes, liners, and pallets. For application of DIACON as a fogging or space spray, use the following directions.

**Application with Cold-Aerosol Generators:** Apply DIACON as a mist or aerosol. Dilute with water or oil as required following the instructions of the spray equipment manufacturer. Apply DIACON at the rate of 1 ml (1/30 oz) per 1,000 square feet of surface area or 1/3 ml (1/10 oz) per 10,000 cubic feet. Use appropriate spray equipment to achieve uniform treatment coverage.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before re-entry. Repeat application as required.

**Application as an Aqueous Spray:** To Prepare a diluted spray solution, by partially fill the mixing container with water, adding 1 ml (1/30 oz) of DIACON, mix, and complete filling with a total of 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low-pressure sprayer typically used for indoor applications. Treat all areas which that may harbor insect pests. Use diluted spray solution within 72 hours of mixing. Agitate before each use. Repeat application as required.

**Mixing Instructions:** ~~Partially fill the mixing container with water, add DIACON, mix and complete filling with quantity of water specified above. Use diluted spray solution within 24 hours of mixing. Agitate before each use.~~

When tank mixing DIACON with conventional adulticides, the more stringent label will apply. DIACON may also be used or mixed with diatomaceous earth or dust-controlling oils.

(Directions for Use for APEX – Mushrooms)

(S)-methoprene, the active ingredient in APEX® insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of (S)-methoprene does not result in immediate insect kill; it interferes with the normal process of insect development. APEX will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions, fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best overall results. After treatment with APEX, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than 2 weeks after treatment to assess the full benefit of APEX.

**METHOD, RATE, AND TIMING OF APPLICATION:** For best results, incorporate APEX in the mushroom growing medium.

Follow either **METHOD A, METHOD B, or METHOD C**, or *method D*  
Application Instructions.

**A. INCORPORATE IN CASING AT TIME OF CASING**

Apply APEX at the rate of 5½ fluid ounces per 1,000 sq ft (~~fl oz/1,000 sq ft~~). ~~Make a~~ *Apply* evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

**B. INCORPORATE IN COMPOST AT TIME OF SPAWNING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

**In Compost:** Apply APEX at the rate of 5½ fl oz/1,000 sq ft in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

**In Casing:** Apply APEX at the rate of 2¼ fl oz/1,000 sq ft. ~~Make a~~ *Apply* evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

For those crops that have a 16-day or longer spawn run, *use* a split application ~~can be used~~.

**First Application, on compost:** Apply APEX 12-13 days after spawning. Drench APEX evenly on the surface at the rate of 2¾ fl oz/1,000 sq ft in adequate water for even distribution.

**Second Application, in casing:** Apply APEX at the rate of 2¾ fl oz/1,000 sq ft. ~~Make a~~ *Apply* evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**D. INCORPORATE IN CASING AT TIME OF CASING FOLLOWED BY A SURFACE APPLICATION PRIOR TO FIRST BREAK OF MUSHROOMS**

**First Application, in casing:** Apply 5½ fl. oz. APEX per 1,000 sq ft in adequate water for even distribution and mechanically mix into the casing material prior to the casing operation.

**Second Application, on casing surface just prior to first break:** Apply 2¾ fl. oz. APEX per 1,000 square feet in adequate water for even distribution as a surface drench prior to first break of mushrooms.

### **MIXING AND HANDLING INSTRUCTIONS**

1. Add the measured amount of APEX to a spray tank partially filled with water, mix, and complete filling with specified quantity of water.
2. Use diluted spray solution within ~~48~~<sup>72</sup> hours of mixing. Agitate before each use.

### **EFFECT ON MUSHROOMS**

In most cases, treatment with APEX has a beneficial effect on mushroom yield through control of damaging sciariid fly larvae. The user can determine if reduced crop yields will occur under his own cultural conditions by conducting test treatments on small plots.

## Directions for Use for non-biting midges/filter flies

### INTRODUCTION:

RF-9811 EC is a unique product that controls filter flies (*Psychoda* spp.), non-biting midges (*Chironomidae*), and other nuisance aquatic insect species infesting waste water treatment facilities. RF-9811 EC contains an insect growth regulator (IGR) that is effective on the developing stages of insect pests. RF-9811 EC does not kill adults but affects the larval stages as they grow and develop. RF-9811 EC stops the formation of pupae of insect pests, thereby eliminating adult populations. RF-9811 EC stops the cycle of reproduction, keeping pest infestations under control. Continued use of the product prevents these pests from rebounding into unmanageable infestations.

### DIRECTIONS FOR USE:

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

### MIXING AND HANDLING INSTRUCTIONS:

Partially fill spray container with water; then add the specified amount of RF-9811 EC, agitate, and complete filling **with water**. Agitate mildly during application. ~~To Agitation can be accomplished by use of~~ recirculation pump, mixer, air pump, or other suitable equipment.

### USE APPLICATIONS

**Waste Water Treatment Facility Pests:** Use RF-9811 EC in trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water treatment facilities where non-biting midges, filter flies, and other nuisance aquatic insect pests are a problem.

### What to Expect in Waste Water Treatment Facilities

#### Continuous Flow Sewage (waste water)

In order to achieve effective results, **apply** RF-9811 EC ~~must be applied~~ daily for **10 days at least 2 weeks**. If applications are not made on a continuous basis, erratic results may occur. Following initial applications of RF-9811 EC, a gradual reduction in the number of adult pests will be seen over approximately a 1 week period. Reduction in adult populations will be very noticeable within a 2 week period following continuous application. Due to varying conditions or heavy infestations, a longer period may be necessary ~~for to achieve~~ control. Since the mode of action of RF-9811 EC is to prevent adult emergence, existing adults and pupae present at the time of initial application will complete their life cycle.

~~As adult suppression peaks, use a maintenance rate of RF-9811 EC for continuous protection from population rebound. However, if~~ application of RF-9811 EC is halted following population suppression, rebound of the population can be expected within 2 to 3 weeks after stopping application. For continuous suppression throughout the pest season, continue applications of RF-9811 EC.

### Sludge or Solid Waste Applications

For solid waste applications, use **3 ounces per million gallons of sludge or solids** ~~the initial high rate~~. Apply dilution until the drying beds have been filled. Following filling of the drying beds, halt the ~~dilution~~ application. ~~Make a~~ **Applications of** the dilution at the influent side as the sludge or solids enter into the drying beds. Application of RF-9811 EC to solids will prevent the emergence of adult insect pests thereby keeping infestations under control.

### METHODS OF APPLICATION

**Waste Water Treatment Facilities:** Dilute RF-9811 EC with water prior to use. Apply RF-9811 EC by using a metering pump, drip bucket, or other suitable equipment. Metering pumps are the most efficient and accurate method of application. The application method will influence appropriate product dilution. ~~Depending on the dosage rate, p~~ **Prepare the** desired volume of dilution to apply over a **24-6-8** hour period (~~day tank~~), or in cases of sludge beds, ~~applied~~ until the beds have been filled. When using delivery devices, it is important to calibrate the device to deliver the required amount of RF-9811 EC over a **24-6-8** hour period. ~~Mix sufficient material in advance to provide for applications longer than 24 hours. Metering pumps that are capable of delivering material for more than 24 hours will provide best results.~~

### APPLICATION RATE

#### Waste Water Treatment Pests:

**Initial Application** — ~~Apply 2.5 to 3.0 ounces of RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side over a 24 hour period.~~

**Application to Waste Water – Trickling Filter:** Apply 3 ounces of RF-9811 EC per 1 million gallons of sewage [waste water] in sufficient water to uniformly apply the material. Apply at times of low periods of flow (typically evening through early morning hours) for 6-8 hours. Discontinue treatment during peak flow periods and repeat applications the following day during the low flow period. Continue this application method for 10 days or until suppression of pests is achieved. Repeat the application every 15 days or as necessary to control pests.

**Maintenance Rate** — ~~1.5 to 2.0 ounces RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side over a 24 hour period.~~

~~To achieve effective results, use initial application rates on a daily basis for 2 weeks, without interruption. Use sufficient water/RF-9811 EC to achieve uniform application to sewage (waste water) over a 24 hour period. Make application of the dilution at the influent side of the particular area to be treated.]~~

~~Maintain initial rate of application for 2 weeks and then for continued effectiveness, follow the directions for the maintenance rate.~~

## APPLICATION SITES

**Waste Water Treatment Facilities:** ~~Make a~~ ~~Applications of~~ RF-9811 EC to sewage as it flows into trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water facilities where pests are a problem.

~~Make~~ ~~Apply~~ RF-9811 EC ~~applications~~ as the sewage enters (influent areas) the targeted processing area. ~~Failure to add the material~~ **For best results, apply** at the influent side ~~may~~ ~~result in erratic results.~~

*Block this section with a solid line*

**STORAGE and DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. **Storage** - Store in a cool dry place. **Pesticide Disposal** - Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal - [Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

## WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

APEX®, DIACON II®, STRIKE®, and DIANEX®, are registered trademarks of Wellmark International.

Wellmark International  
Schaumburg IL 60173

Made in USA

For information or in case of an emergency, call 1-800-XXX-XXXX.  
Visit our Web site: [web site address]

**Receipt for Section 3**

S: 743013

Regulatory Type: Product Registration - Section 3 Resubmission: ☐ Yes ☒ No

Application Type: Amendment

Company: 2724 **WELLMARK INTERNATIONAL** ☒

Risk Manager: Biologicals & Pollution Prevention Division, PM Team 91

Product #: 2724-427 Product Name: RF-9811 EC

Override:

Me Too Section3:  Me Too Product Name:

Application Date: 21-Jul-2003 ☒ OPP Rec'd Date: 29-Jul-2003 ☒

Front End Date: 01-Aug-2003 ☒ Risk Manager Send Date: 01-Aug-2003 ☒

Fast Track: ☐ Studies: ☐ New Ingredient: ☐

Receipt Description:

New Ingredient Request Date:

New Ingredient Received Date:

Form A: ☐ Signature Date:  Form B: ☐ Signature Date:

**Print Letter**

**Enter More Information**

*FAST Track*  
*Rodenticide*  
*300*  
*• Demand due for use*  
*• action reviewed (stand comments)*

*Linda,*  
*OPPIN updated:*  
*- RAL + action code*  
*sdh 8/25/03*

*FTT log*  
*AUG 25 2003*  
*sdh*  
**72**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

August 1, 2003

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

NANCY HUEBL  
WELLMARK INTERNATIONAL  
1100 EAST WOODFIELD ROAD, SUITE 500  
SCHAUMBURG, IL 60173

PRODUCT NAME: RF-9811 EC  
COMPANY NAME: WELLMARK INTERNATIONAL  
EPA FILE SYMBOL: 2724-427  
EPA RECEIPT DATE: 07/29/03

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Biologicals & Pollution Prevention Division, PM Team 91, at (703) 308-8269.

Sincerely,

A handwritten signature in blue ink that reads "J. Wrice".

Front End Processing Staff  
Information Services Branch  
Information Resources and Services Division



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☒ Amendment  
☐ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number Wellmark International/2724-427	2. EPA Product Manager S. Reilly	3. Proposed Classification  <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Wellmark International/Zoecon RF-342 Emulsifiable Concentrate	PM # Biopesticides	
5. Name and Address of Applicant / Registrant (Include ZIP Code) Wellmark International 1100 East Woodfiel Road, Suite 500 Schaumburg, Illinois 60173  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(C)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No _____ Product Name _____	

## Section - II

<input checked="" type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and section II.)

Label amendment to add stored food commodities (RAC's) to DIACON section (based on 6/11/03 (S)-Methoprene tolerance exemption - all tolerances revoked), clarify use directions for DIANEX/DIACON/waste water pests sections, included directions for additional application method on APEX/waste water pests sections

## Section - III

1. Material This Product Will be Packaged In:				2. Type of Container	
Child-Resistant Packaging  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted If "Yes" Unit Packaging wgt. No. per container		If "Yes" Unit Packaging wgt. No. per container			
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1-2.5 liters		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Label Accompanying Product	
6. Manner in Which Label is Affixed to Product		<input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Stenciled <input type="checkbox"/> Other _____			

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Nancy Huebl	Title Regulatory Specialist	Telephone No. (Include Area Code) (847) 330.5376
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received  (Stamped)  
2. Signature 	3. Title Regulatory Specialist	
4. Typed Name Nancy Huebl	5. Date 21-Jul-03	



July 21, 2003

Document Processing Desk (AMEND)  
Office of Pesticide Programs 7504C  
U.S. Environmental Protection Agency  
Room 266A Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, Virginia 22202

ATTENTION: Sheryl Reilly, Biopesticides

SUBJECT: LABEL AMENDMENT: ADD FOOD COMMODITIES (RAC'S),  
REVISE DIRECTIONS FOR USE  
ZOECON® RF-342 EMULSIFIABLE CONCENTRATE (RF9811 EC)  
EPA REG. NO. 2724-427

Dear Ms. Reilly:

Enclosed is completed EPA Form 8570-1 and 5 copies of revised labeling for the above product. I've included one highlighted copy (red is new text; blue [strikeout] is deleted text) for your convenience in reviewing noted changes. This amendment is being submitted as a result of the June 11, 2003 finalization of the (S)-Methoprene tolerance exemption whereby (S)-Methoprene can now be used on all Raw Agricultural Commodities (RAC's). This "master label" is composed of 4 different sets of Directions for Use (DIANEX(stored tobacco pests)/DIACON (stored product insects)/APEX (mushroom: scarid flies)/waste water treatment (non-biting midges/filter flies). We are taking this opportunity to add stored food commodities (RAC's) (sweet corn, sunflower seeds, seeds used for oil, seed stock, spices, cocoa) as well as pet food and animal feed to the DIACON - for stored product insects directions. Directions for Use for all sections of the label are being revised for clarity; as well as including additional application methods. All of the changes are more specifically denoted on the highlighted label cover sheet.

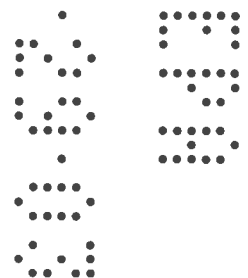
If you have any questions, please, call me directly at 847-330-5376 or contact me via email ( [nancy.huebl@wellmarkint.com](mailto:nancy.huebl@wellmarkint.com) ). Thank you for your assistance in this matter.

Yours sincerely,  
WELLMARK INTERNATIONAL

Nancy Huebl  
Regulatory Specialist

enclosure

cc: C. Elmi/J. Richardson



# Label Review Sheet

<b>FILENAME:</b>	g:\regulatory\LABELS\CAHSPEC\02724427\amend 9811 add racs 703	<b>COVERSHEET UPDATE:</b>	July 2003
<b>PRODUCT:</b>	RF9811 EC	<b>EPA REG. NO.:</b>	2724-427
<b>APPROVED:</b>	Submitted 7/03	<b>SUPERSEDES:</b>	11/09/01

**OVERVIEW:** Label amendment to add stored food commodities to DIACON section (based on 6/11/03 (S)-Methoprene tolerance exemption – all tolerances revoked), clarify use directions for DIANEX/DIACON/waste water pests sections, included directions for additional application method on APEX/waste water pests sections

Page #	Description of Major Changes
1	Revised stored product pests claim to include stored food commodities (based on 6/11/03 (S)-Methoprene tolerance exemption – all tolerances revoked) and added claim for seed pests  “Per unit volume of active ingredient” revised based on specific gravity
DIANEX section	
5	Directions for Use – reworded for clarity, Mixing Instructions incorporated into “Application as an Aqueous Spray”
DIACON section	
6-8	Directions for Use – Reworded for clarity  Include stored food commodities (based on 6/11/03 (S)-Methoprene tolerance exemption – all tolerances revoked)  Application Rate table – added commodities and proportionately expanded  Added food processing sites (based on 6/11/03 (S)-Methoprene tolerance exemption – all tolerances revoked)  Mixing Instructions incorporated into “Application as an Aqueous Spray”  Added tank mixing text
APEX section	
9-10	Directions for Use – additional application method
Waste water treatment facility pests – non-biting midges/filter flies	

11-13	<p>Added Introduction paragraph to explain how product works</p> <p>Directions for Use: reworded for clarity</p> <p>Additional directions for application via trickling filter</p> <p>– deleted maintenance rate</p>

[Optional text]

RF-9811 EC

Alternate Brand Names: DIACON® II; RIZACON™, APEX®; STRIKE® Ultra Professional Midge Control; DIANEX® Emulsifiable Concentrate for Tobacco

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator

[to Control Insect Pests in Tobacco Processing and Storage Facilities]

[to Prevent the Emergence of Adult Sciarid Flies In Mushroom Culture]

[To Control Stored Product Insects in Stored Food Commodities, such as Cereal Grains, Grain Sorghum (Milo), Corn, Popcorn, Birdseed, Peanuts, Sunflower Seeds]

[to control insect pests in seeds]

[to Prevent the Emergence of Adult Filter Flies and Non-biting Midges in Waste Water Treatment Facilities]

**ACTIVE INGREDIENT:**

(S)-Methoprene (CAS #65733-16-6)..... 33.6%

**OTHER INGREDIENTS\*:**..... 66.4%

Total: ..... 100.0%

\*Contains petroleum distillates

This product contains 2.5 lbs/gallon (288 grams/liter) (S)-methoprene active ingredient

KEEP OUT OF REACH OF CHILDREN

**CAUTION**

See Back Panel for Additional Precautionary Statements

EPA Reg. No. 2724-427

NET CONTENTS:

EPA Est. No.

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If swallowed	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [phone number] for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

(Include WPS for APEX Mushroom Use pattern)

### **[Personal Protective Equipment (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.]

### **[Engineering Controls Statements:**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.]

**[IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.]

**[User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.]

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

[Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.]

#### **[AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils)
- Shoes plus socks

Do not apply this product through any type of irrigation system.]

(Directions for Use for RF-9811 EC [DIANEX]-Stored Tobacco Products)

**INTRODUCTION:** RF-9811 EC is an emulsifiable formulation of the insect growth regulator, (S)-methoprene. It is designed for use in aerosol generators and as a concentrate for use as an aqueous spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. RF-9811 EC, when used according to label directions, controls these and other insect pests:

Almond moth (*Ephestia cautella*)

Cigarette beetle (*Lasioderma serricorne*)

Sawtooth grain beetle (*Oryzaephilus surinamensis*)

Red flour beetle (*Tribolium castaneum*)

Tobacco moth (*Ephestia elutella*)

Indian meal moth (*Plodia interpunctella*)

Lesser grain borer (*Rhyzopertha dominica*)

Merchant grain beetle (*Oryzaephilus mercator*)

Confused flour beetle (*Tribolium confusum*)

Warehouse beetle (*Trogoderma* spp.)

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Aerosol Generators:** Apply RF-9811 EC as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply RF-9811 EC at the rate of 1 ml per 1,000 square feet as a surface treatment. For fogging applications, use 3 ml per 10,000 cubic feet.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before re-entry. Repeat application as required.

**Application as an Aqueous Spray:** To prepare a diluted spray solution, partially fill the mixing container with water, add 1 ml of RF-9811 EC, mix, and complete filling with a total of 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low-pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Use diluted spray solution within 72 hours of mixing. Agitate before each use. Repeat application as required.

(Directions for Use for DIACON -Stored Product Insects)

**PRODUCT INFORMATION:** (S)-methoprene, the active ingredient in DIACON®, protects stored grains from damaging insects by interfering with the normal process of insect development. Unlike traditional pesticides, DIACON is not an adulticide, but its residual activity prevents the development of larvae into adults. DIACON, when used according to the label directions, prevents regeneration of these and other insect pests: almond moth, Indian meal moth, cigarette beetle, lesser grain borer, sawtooth grain beetle, merchant grain beetle, red flour beetle, and confused flour beetle. Treat existing insect populations with an adulticide before applying DIACON for residual protection.

Apply DIACON to any food commodity (including but not limited to: cereal grains, corn, sunflower, canola, popcorn, wheat, spices, sorghum, rice, cocoa, peanuts, oats, and millet) for control of insect larvae. DIACON may also be used to treat pet food, animal feedstuffs, birdseed, and cotton hulls. DIACON may be applied to seed stock. Treated commodities may be processed within 24 hours following an application.

If stored grain insect populations exceed 2 insects per 1 kg sample during storage, fumigate to avoid grain-damage from existing insects. Refer to Federal Grain Inspection Service regulations for stored grain for more information on sampling and insect thresholds.

**Stored Commodities:** For protection of stored food, grain, animal feed, seeds used for oil, and seed stock against stored product insects - for optimum results, thoroughly clean and treat storage areas prior to storing commodities. DIACON may also be applied as a top-dressing to stored products that have been placed into bins or storage areas. For topdressing applications, spray or fog the bin headspace paying particular attention to the top of the commodity mass, beams, ceilings, and rafters. Thorough coverage is essential. For surface treatments, apply 1 ml (1/30 oz) of DIACON per 1,000 square feet; or for space spray, apply 3 ml (1/10 oz) per 10,000 cubic feet in sufficient diluent to provide adequate coverage. Do not flood top-dress area.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**GENERAL DIRECTIONS FOR TREATMENT OF GRAIN BEING STORED:** Dilute DIACON in water, FDA-approved food grade oils\*, or soybean oil and apply to the moving grain stream as a uniform, coarse spray. Suggested final water or oil dilution volume is 5 gallons of liquid per 1,000 bushels of grain and 10 gallons of liquid per 1,000 bushels of rice. Lower volumes of diluent may be used but, it is important to assure that the commodity mass is uniformly treated. Apply final spray volumes of oil solutions at the oil manufacturer's label application rates. Agitate water or oil solutions.

A range of rates for different commodities is provided for flexibility during varying storage periods and conditions. For maximum residual, use higher rates; the lowest application rate offers shorter residual for commodities stored  $\leq 6$  months.

Apply DIACON in solution in accordance with the general directions, to stored products at the following rates per 1,000 bushels:

#### APPLICATION RATES

COMMODITY	fl oz	ml	fl oz	ml	fl oz	ml	fl oz	ml
Wheat	14	420	7	210	3.5	105	1.75	52
Corn	14	420	7	210	3.5	105	1.75	52
Sorghum (milo)	14	420	7	210	3.5	105	1.75	52
Barley	12	360	6	180	3.0	90	1.50	45
Rice	12	360	6	180	3.0	90	1.50	45
Oats	8	240	4	120	2.0	60	1.00	30
Peanuts*	8	240	4	120	2.0	60	1.00	30
Sunflower	8	240	4	120	2.0	60	1.00	30

\*For peanuts, use water solution only

To determine application rates for other commodities, contact your distributor or Wellmark International.

#### USE PRECAUTIONS:

- Apply DIACON grain protectant only to grain of known treatment history.
- Check spray equipment calibration regularly to insure proper application rates.
- Add the measured amount of DIACON to a spray tank partially filled with water or oil, mix, and complete filling with specified quantity of carrier.
- Use diluted spray solution within 72 hours of mixing. Agitate before each use.
- Clean up extremely dusty sites prior to application.
- DIACON may be used in metering systems in conjunction with dust-controlling oils. Follow the equipment and oil manufacturers' directions; ensure that the label rate of DIACON is applied uniformly.

DIACON may also be used as a fogging concentrate or surface spray for the treatment of stored product pests and other insect pests infesting warehouses, silos, storage bins or other stored commodity areas. DIACON may also be applied in food processing, food service, food preparation, and food handling establishments including, mills, bakeries, restaurants, taverns, industrial buildings, breweries, candy processing, pet food production, grocery stores, modes of transportation (rail cars, ships, and trucks), cereal processing and bottling facilities. In addition to treating raw commodities and associated processing facilities, DIACON may be applied to packaged, canned, and bottled foodstuffs, as well as associated packaging such as boxes, liners, and pallets. For application of DIACON as a fogging or space spray, use the following directions.

**Application with Aerosol Generators:** Apply DIACON as a mist or aerosol. Dilute with water or oil as required following the instructions of the spray equipment manufacturer. Apply DIACON at the rate of 1 ml (1/30 oz) per 1,000 square feet of surface area or 3 ml (1/10 oz) per 10,000 cubic feet. Use appropriate spray equipment to achieve uniform coverage.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before re-entry. Repeat application as required.

**Application as an Aqueous Spray:** To prepare a diluted spray solution, partially fill the mixing container with water, add 1 ml (1/30 oz) of DIACON, mix, and complete filling with a total of 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low-pressure sprayer typically used for indoor applications. Treat all areas that may harbor insect pests. Use diluted spray solution within 72 hours of mixing. Agitate before each use. Repeat application as required.

When tank mixing DIACON with conventional adulticides, the more stringent label will apply. DIACON may also be used or mixed with diatomaceous earth or dust-controlling oils.

(Directions for Use for APEX – Mushrooms)

(S)-methoprene, the active ingredient in APEX® insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of (S)-methoprene does not result in immediate insect kill; it interferes with the normal process of insect development. APEX will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions, fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best overall results. After treatment with APEX, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than 2 weeks after treatment to assess the full benefit of APEX.

**METHOD, RATE, AND TIMING OF APPLICATION:** For best results, incorporate APEX in the mushroom growing medium.

Follow either **METHOD A, METHOD B, or METHOD C**  
Application Instructions.

**A. INCORPORATE IN CASING AT TIME OF CASING**

Apply APEX at the rate of 5½ fluid ounces per 1,000 sq ft. Apply evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

**B. INCORPORATE IN COMPOST AT TIME OF SPAWNING AND IN CASING  
AT TIME OF PLACEMENT OF CASING LAYER**

**In Compost:** Apply APEX at the rate of 5½ fl oz/1,000 sq ft in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

**In Casing:** Apply APEX at the rate of 2¼ fl oz/1,000 sq ft. Apply evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT  
TIME OF PLACEMENT OF CASING LAYER**

For those crops that have a 16-day or longer spawn run, use a split application.

**First Application, on compost:** Apply APEX 12-13 days after spawning. Drench APEX evenly on the surface at the rate of 2¾ fl oz/1,000 sq ft in adequate water for even distribution.

**Second Application, in casing:** Apply APEX at the rate of 2¾ fl oz/1,000 sq ft. Apply evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**D. INCORPORATE IN CASING AT TIME OF CASING FOLLOWED BY A  
SURFACE APPLICATION PRIOR TO FIRST BREAK OF MUSHROOMS**

**First Application, in casing:** Apply 5½ fl. oz. APEX per 1,000 sq ft in adequate water for even distribution and mechanically mix into the casing material prior to the casing operation.

**Second Application, on casing surface just prior to first break:** Apply 2¾ fl. oz. APEX per 1,000 square feet in adequate water for even distribution as a surface drench prior to first break of mushrooms.

#### **MIXING AND HANDLING INSTRUCTIONS**

1. Add the measured amount of APEX to a spray tank partially filled with water, mix, and complete filling with specified quantity of water.
2. Use diluted spray solution within 72 hours of mixing. Agitate before each use.

#### **EFFECT ON MUSHROOMS**

In most cases, treatment with APEX has a beneficial effect on mushroom yield through control of damaging sciarid fly larvae. The user can determine if reduced crop yields will occur under his own cultural conditions by conducting test treatments on small plots.

Directions for Use for non-biting midges/filter flies

**INTRODUCTION:**

RF-9811 EC is a unique product that controls filter flies (*Psychoda* spp.), non-biting midges (*Chironomidae*), and other nuisance aquatic insect species infesting waste water treatment facilities. RF-9811 EC contains an insect growth regulator (IGR) that is effective on the developing stages of insect pests. RF-9811 EC does not kill adults but affects the larval stages as they grow and develop. RF-9811 EC stops the formation of pupae of insect pests, thereby eliminating adult populations. RF-9811 EC stops the cycle of reproduction, keeping pest infestations under control. Continued use of the product prevents these pests from rebounding into unmanageable infestations.

**DIRECTIONS FOR USE:**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**MIXING AND HANDLING INSTRUCTIONS:**

Partially fill spray container with water; then add the specified amount of RF-9811 EC, agitate, and complete filling with water. Agitate mildly during application. To agitate, use recirculation pump, mixer, air pump, or other suitable equipment.

**USE APPLICATIONS**

**Waste Water Treatment Facility Pests:** Use RF-9811 EC in trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water treatment facilities where non-biting midges, filter flies, and other nuisance aquatic insect pests are a problem.

**What to Expect in Waste Water Treatment Facilities**

**Continuous Flow Sewage (waste water)**

In order to achieve effective results, apply RF-9811 EC daily for 10 days. If applications are not made on a continuous basis, erratic results may occur. Following initial applications of RF-9811 EC, a gradual reduction in the number of adult pests will be seen over approximately a 1 week period. Reduction in adult populations will be very noticeable within a 2 week period following continuous application. Due to varying conditions or heavy infestations, a longer period may be necessary to achieve control. Since the mode of action of RF-9811 EC is to prevent adult emergence, existing adults and pupae present at the time of initial application will complete their life cycle.

If application of RF-9811 EC is halted following population suppression, rebound of the population can be expected within 2 to 3 weeks after stopping application. For continuous suppression throughout the pest season, continue applications of RF-9811 EC.

**Sludge or Solid Waste Applications**

For solid waste applications, use 3 ounces per million gallons of sludge or solids. Apply dilution until the drying beds have been filled. Following filling of the drying beds, halt the application. Apply the dilution at the influent side as the sludge or solids enter into the drying beds. Application of RF-9811 EC to solids will prevent the emergence of adult insect pests thereby keeping infestations under control.

## **METHODS OF APPLICATION**

**Waste Water Treatment Facilities:** Dilute RF-9811 EC with water prior to use. Apply RF-9811 EC by using a metering pump, drip bucket, or other suitable equipment. Metering pumps are the most efficient and accurate method of application. The application method will influence appropriate product dilution. Prepare the desired volume of dilution to apply over a 6-8 hour period, or in cases of sludge beds, apply until the beds have been filled. When using delivery devices, it is important to calibrate the device to deliver the required amount of RF-9811 EC over a 6-8 hour period.

## **APPLICATION RATE**

### **Waste Water Treatment Pests:**

**Initial Application** – Apply 3 ounces of RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side.

**Application to Waste Water – Trickling Filter:** Apply 3 ounces of RF-9811 EC per 1 million gallons of sewage [waste water] in sufficient water to uniformly apply the material. Apply at times of low periods of flow (typically evening through early morning hours) for 6-8 hours. Discontinue treatment during peak flow periods and repeat applications the following day during the low flow period. Continue this application method for 10 days or until suppression of pests is achieved. Repeat the application every 15 days or as necessary to control pests.

## **APPLICATION SITES**

**Waste Water Treatment Facilities:** Apply RF-9811 EC to sewage as it flows into trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water facilities where pests are a problem.

Apply RF-9811 EC as the sewage enters (influent areas) the targeted processing area. For best results, apply at the influent side .

**STORAGE and DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. **Storage** - Store in a cool dry place. **Pesticide Disposal** - Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal - [Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

#### **WARRANTY AND CONDITIONS OF SALE**

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

APEX®, DIACON II®, STRIKE®, and DIANEX®, are registered trademarks of Wellmark International.

Wellmark International  
Schaumburg IL 60173

Made in USA

For information or in case of an emergency, call 1-800-XXX-XXXX.  
Visit our Web site: [web site address]



United States  
Environmental Protection Agency  
Washington, DC 20460

Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number Wellmark International/2724-427	2. EPA Product Manager Jim Downing	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Wellmark International/RF9811 EC	PM # Biopesticides	
5. Name and Address of Applicant / Registrant (Include ZIP Code) Wellmark International 1100 East Woodfield Road, Suite 500 Schaumburg, Illinois 60173  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(C)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No _____ Product Name _____	

## Section - II

## NOTIFICATION

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Date Reviewed: 1-11-02  
Reviewed By: D. Hudson

**Explanation:** Use additional page(s) if necessary. (For section I and section II.)

Notification of alternate brand names: DIACON II, RIZACON, APEX, STRIKE Ultra Professional Midge Control; DIANEX Emulsifiable Concentrate for Tobacco. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

## Section - III

1. Material This Product Will be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
				<input checked="" type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted					
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1 & 2.5 liter		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Label Accompanying Product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other _____	

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Nancy Huebl		Title Regulatory Specialist		Telephone No. (Include Area Code) 847 330 5376	
<p align="center"><b>Certification</b></p> <p>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.</p>					
2. Signature <i>Nancy Huebl</i>		3. Title Regulatory Specialist		6. Date Application Received (Stamped)	
4. Typed Name Nancy Huebl		5. Date November 8, 2001			

**NOTIFICATION**

Date Reviewed: 1-11-02

Reviewed By: D. Hudson

[Optional text]

RF-9811 EC

Alternate Brand Names: **DIACON® II; APEX®; STRIKE® Ultra Professional Midge Control; DIANEX® Emulsifiable Concentrate for Tobacco**

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator

[to Control Insect Pests in Tobacco Processing and Storage Facilities]

[to Prevent the Emergence of Adult Sciarid Flies In Mushroom Culture]

[To Control Stored Product Insects in Cereal Grains, Grain Sorghum (Milo), Corn (except Sweet Corn and Popcorn), Birdseed, and Peanuts]

[to Prevent the Emergence of Adult Filter Flies and Non-biting Midges in Waste Water Treatment Facilities]

**ACTIVE INGREDIENT:**

(S)-Methoprene (CAS #65733-16-6)..... 33.6%

**OTHER INGREDIENTS\*:** ..... 66.4%

Total:..... 100.0%

\*Contains petroleum distillates

This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See Back Panel for Additional Precautionary Statements

EPA Reg. No. 2724-427

NET CONTENTS:

EPA Est. No.



## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If swallowed	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [phone number] for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

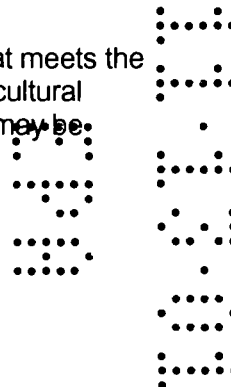
(Include WPS for APEX Mushroom Use pattern)

### **[Personal Protective Equipment (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.]

### **[Engineering Controls Statements:**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.]



**[IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.]

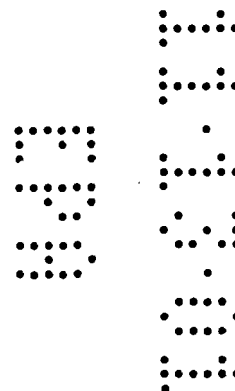
**[User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.]

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

[Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.]



### **[AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

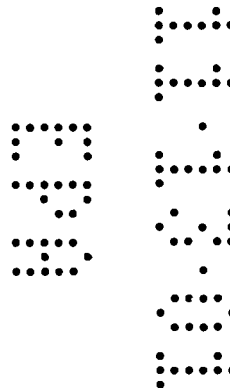
Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils)
- Shoes plus socks

Do not apply this product through any type of irrigation system.]



(Directions for Use for RF-9811 EC [DIANEX]-Stored Tobacco Products)

**INTRODUCTION:** RF-9811 EC is an emulsifiable formulation of the insect growth regulator, (S)-methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. RF-9811 EC, when used according to label directions, controls the following insects:

Almond moth (*Ephestia cautella*)

Cigarette beetle (*Lasioderma serricorne*)

Sawtooth grain beetle (*Oryzaephilus surinamensis*)

Red flour beetle (*Tribolium castaneum*)

Tobacco moth (*Ephestia elutella*)

Indian meal moth (*Plodia interpunctella*)

Lesser grain borer (*Rhyzopertha dominica*)

Merchant grain beetle (*Oryzaephilus mercator*)

Confused flour beetle (*Tribolium confusum*)

Warehouse beetle (*Trogoderma* spp.)

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

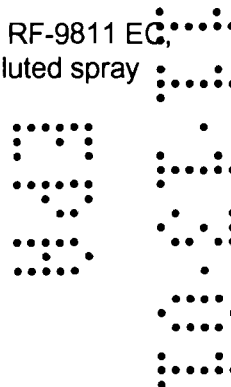
Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply RF-9811 EC as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply RF-9811 EC at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of RF-9811 EC to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add RF-9811 EC, mix and complete filling with quantity of water specified above. Use diluted spray solution within 24 hours of mixing. Agitate before each use.



(Directions for Use for DIACON -Stored Product Insects)

**PRODUCT INFORMATION:** (S)-methoprene, the active ingredient in DIACON®, protects stored grains from damaging insects by interfering with the normal process of insect development. Unlike traditional pesticides, DIACON is not an adulticide, but its residual activity prevents the development of larvae into adults. DIACON, when used according to the label directions, prevents regeneration of the following insects: almond moth, Indian meal moth, cigarette beetle, lesser grain borer, sawtooth grain beetle, merchant grain beetle, red flour beetle, and confused flour beetle. Treat existing insect populations with an adulticide before applying DIACON for residual protection.

If stored grain insect populations exceed 2 insects per 1 kg sample during storage, fumigate to avoid grain-damage from existing insects. Refer to Federal Grain Inspection Service regulations for stored grain for more information on sampling and insect thresholds.

**Stored Grain:** For protection of stored food, feed, oil and seed grains against stored grain insects - for optimum results, thoroughly clean and treat grain storage areas prior to storage of grain. DIACON may also be applied as a top-dressing to stored products that have already been placed into bins or storage areas. Use the rate of 2.5 - 5 ppm for this type of application. Do not flood top-dress area.

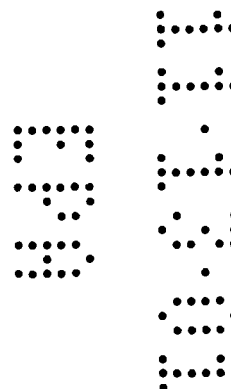
#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**GENERAL DIRECTIONS FOR TREATMENT OF GRAIN BEING STORED:** Dilute DIACON with water or FDA-approved food grade oils\* or soybean oil and apply to the moving grain stream as a coarse spray to give a deposit of 5 ppm of DIACON on the grain. Use a final water solution volume of 5 gallons of liquid per 1000 bushels of grain and 10 gallons of liquid per 1000 bushels of rice. Apply final spray volumes of oil solutions at the oil manufacturer's label application rates. Agitation of water or oil solutions is necessary.

For maximum residual and efficacy, use the rate of 5 ppm. For shorter term residual, lower rates may apply, but do not use rates less than 1 ppm.

DIACON is to be applied in solution in accordance with the general directions to stored products at the following rates per 1000 bushels to provide treatment with 5 ppm concentrations of DIACON. When using lower rates, use the appropriate amount of formulation to achieve the desired application rate:



	5 ppm		2.5 ppm		1 ppm	
	fl oz	ml	fl oz	ml	fl oz	ml
Wheat	7.70	228	4.0	114	1.54	46
Corn	7.10	212	3.5	106	1.42	43
Grain sorghum (Milo)	7.10	212	3.5	106	1.42	43
Barley	6.10	182	3.0	91	1.22	37
Rice	5.70	170	3.0	85	1.10	34
Oats	4.10	121	2.0	61	0.80	25
Peanuts*	3.85	115	2.0	60	0.80	24

\*For peanuts, use water solution only

### USE PRECAUTIONS:

- Apply DIACON grain protectant only to grain of known treatment history, apply no more than once per crop.
- Check spray equipment calibration regularly to insure proper application rates.
- Add the measured amount of DIACON to a spray tank partially filled with water or mineral oil, mix and complete filling with specified quantity of carrier.
- Use diluted spray solution within 48 hours of mixing. Agitate before each use.
- Do not treat at extremely dusty sites.

DIACON may also be used as a fogging concentrate or surface spray for the treatment of warehouses, silos, storage bins or other stored commodity areas. For application of DIACON as a fogging or space spray, use the following directions.

**Application with Cold Aerosol Generators:** Apply DIACON as a mist or aerosol. Dilute with water or oil as required following the instructions of the spray equipment manufacturer. Apply DIACON at the rate of 1 ml per 1000 square feet of surface area or 1 ml per 10 cu ft. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of DIACON to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add DIACON, mix and complete filling with quantity of water specified above. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

(Directions for Use for APEX – Mushrooms)

(S)-methoprene, the active ingredient in APEX® insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of (S)-methoprene does not result in immediate insect kill, it interferes with the normal process of insect development. APEX will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions, fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best overall results. After treatment with APEX, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than 2 weeks after treatment to assess the full benefit of APEX.

**METHOD, RATE, AND TIMING OF APPLICATION:** For best results, incorporate APEX in the mushroom growing medium.

Follow either **METHOD A, METHOD B, or METHOD C**  
Application Instructions.

**A. INCORPORATE IN CASING AT TIME OF CASING**

Apply APEX at the rate of 5½ fluid ounces per 1000 sq ft (fl oz/1000 sq ft). Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

**B. INCORPORATE IN COMPOST AT TIME OF SPAWNING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

**In Compost:** Apply APEX at the rate of 5½ fl oz/1000 sq ft in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

**In Casing:** Apply APEX at the rate of 2¼ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

For those crops that have a 16-day or longer spawn run, a split application can be used.

**First Application, on compost:** Apply APEX 12-13 days after spawning. Drench APEX evenly on the surface at the rate of 2¾ fl oz/1000 sq ft in adequate water for even distribution.

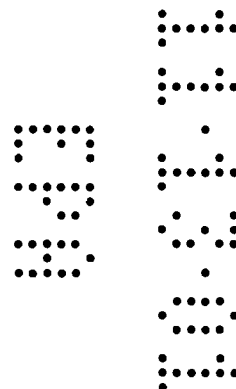
**Second Application, in casing:** Apply APEX at the rate of 2¾ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**MIXING AND HANDLING INSTRUCTIONS**

1. Add the measured amount of APEX to a spray tank partially filled with water, mix, and complete filling with specified quantity of water.
2. Use diluted spray solution within 48 hours of mixing. Agitate before each use.

### **EFFECT ON MUSHROOMS**

In most cases, treatment with APEX has a beneficial effect on mushroom yield through control of damaging sciarid fly larvae. The user can determine if reduced crop yields will occur under his own cultural conditions by conducting test treatments on small plots.



Directions for Use for non-biting midges/filter flies

**DIRECTIONS FOR USE:**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**MIXING AND HANDLING INSTRUCTIONS:**

Partially fill spray container with water; then add the specified amount of RF-9811 EC, agitate, and complete filling. Agitate mildly during application. Agitation can be accomplished by use of recirculation pump, mixer, air pump, or other suitable equipment.

**USE APPLICATIONS**

**Waste Water Treatment Facility Pests:** Use RF-9811 EC in trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water treatment facilities where non-biting midges, filter flies, and other nuisance aquatic insect pests are a problem.

**What to Expect in Waste Water Treatment Facilities**

**Continuous Flow Sewage (waste water)**

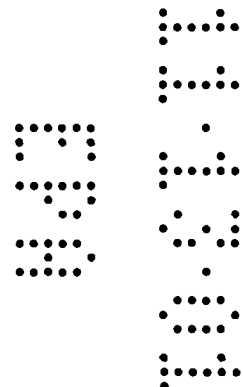
In order to achieve effective results, RF-9811 EC must be applied daily for at least 2 weeks.

If applications are not made on a continuous basis, erratic results may occur. Following initial applications of RF-9811 EC, a gradual reduction in the number of adult pests will be seen over approximately a 1 week period. Reduction in adult populations will be very noticeable within a 2 week period following continuous application. Due to varying conditions or heavy infestations, a longer period may be necessary for control. Since the mode of action of RF-9811 EC is to prevent adult emergence, existing adults and pupae present at the time of initial application will complete their life cycle.

As adult suppression peaks, use a maintenance rate of RF-9811 EC for continuous protection from population rebound. However, if application of RF-9811 EC is halted following population suppression, rebound of the population can be expected within 2 to 3 weeks after stopping application. For continuous suppression throughout the pest season, continue applications of RF-9811 EC.

**Sludge or Solid Waste Applications**

For solid waste applications, use the initial high rate. Apply dilution until the drying beds have been filled. Following filling of the drying beds, halt the dilution application. Make applications of the dilution at the influent side as the sludge or solids enter into the drying beds. Application of RF-9811 EC to solids will prevent the emergence of adult insect pests thereby keeping infestations under control.



## METHODS OF APPLICATION

**Waste Water Treatment Facilities:** Dilute RF-9811 EC with water prior to use. Apply RF-9811 EC by using a metering pump, drip bucket, or other suitable equipment. Metering pumps are the most efficient and accurate method of application. The application method will influence appropriate product dilution. Depending on the dosage rate, prepare desired volume of dilution to apply over a 24 hour period (day tank), or in cases of sludge beds, applied until the beds have been filled. When using delivery devices, it is important to calibrate the device to deliver the required amount of RF-9811 EC over a 24 hour period. Mix sufficient material in advance to provide for applications longer than 24 hours. Metering pumps that are capable of delivering material for more than 24 hours will provide best results.

## APPLICATION RATE

### Waste Water Treatment Pests:

**Initial Application** - 2.5 to 3.0 ounces of RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side over a 24 hour period.

**Maintenance Rate** - 1.5 to 2.0 ounces RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side over a 24 hour period.

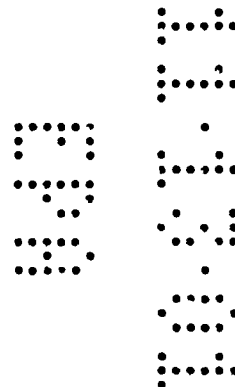
To achieve effective results, use initial application rates on a daily basis for 2 weeks, without interruption. Use sufficient water/RF-9811 EC to achieve uniform application to sewage (waste water) over a 24 hour period. Make application of the dilution at the influent side of the particular area to be treated.]

Maintain initial rate of application for 2 weeks and then for continued effectiveness, follow the directions for the maintenance rate.

## APPLICATION SITES

**Waste Water Treatment Facilities:** Make applications of RF-9811 EC to sewage as it flows into trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water facilities where pests are a problem.

Make RF-9811 EC applications as the sewage enters (influent areas) the targeted processing area. Failure to add the material at the influent side may result in erratic results.



**STORAGE and DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. **Storage** - Store in a cool dry place. **Pesticide Disposal** - Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal - [Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

#### **WARRANTY AND CONDITIONS OF SALE**

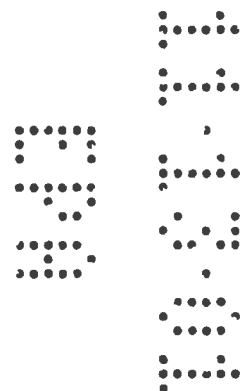
Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

APEX®, DIACON II®, STRIKE®, and DIANEX®, are registered trademarks of Wellmark International.

Wellmark International  
Schaumburg IL 60173

Made in USA

For information or in case of an emergency, call 1-800-XXX-XXXX.  
Visit our Web site: [web site address]





November 8, 2001

Document Processing Desk (NOTIF)  
Office of Pesticide Programs 7504C  
U.S. Environmental Protection Agency  
Room 266A Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, Virginia 22202

ATTENTION: S. Reilly

SUBJECT: NOTIFICATION OF ALTERNATE BRAND NAMES PER PRN 98-10  
RF 9811 EC/EPA REG. NO. 2724-427

Dear Ms. Reilly:

Enclosed is a completed EPA Form 8570-1 and 1 copy of revised highlighted labeling to serve as notification of the following alternate brand names for the above registration:

OK DIACON® II

OK RIZACON™

OK APEX®

OK STRIKE® Ultra Professional Midge Control

DIANEX® Emulsifiable Concentrate for Tobacco [already in reg. under 2724-427]

I've enclosed a stamped, self-addressed postcard to confirm notification acceptance. If you have any questions, please, call me directly at 847/330-5376. Thank you for your assistance in this matter.

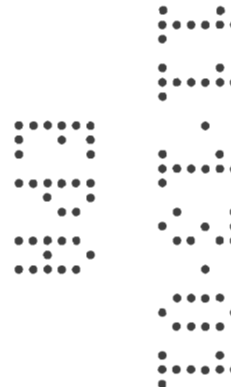
Yours sincerely,  
WELLMARK INTERNATIONAL

*Nancy Huebl*

Nancy Huebl  
Regulatory Specialist

enclosure

cc: C. Elmi/J. Richardson





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

NOV - 2 2001

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Steven R. Spaulding  
Wellmark International  
1100 E. Woodfield Road  
Schaumburg, IL 60173

Dear Mr. Spaulding:

Subject: Formulation Amendment Application and Confidential Statement of Formula  
Your Submission Dated September 19, 2000  
EPA Registration No. 2724-427, RF-9811EC

On the basis of information furnished by the registrant, the above named pesticide is hereby amended under the Federal Insecticide, Fungicide and Rodenticide Act. This action does not eliminate the need for continual reassessment of the pesticide. If EPA determines at any time, that additional data are required to maintain in effect this registration, the Agency will require submission of such data under section 3(c)(2)(B).

This amended registration allows for the inclusion of new uses (mushrooms, stored grains, corn, birdseed and peanuts, and waste water treatment facilities) to the label. This amendment also changes the emulsifier/solvent system by removing a potential eye irritant.

The Confidential Statement of Formula submitted for the new formulation (amendment) cited above is acceptable and has been placed in the file. In addition, a stamped copy of your new label is enclosed.

Sincerely,

A handwritten signature in cursive script, reading "Sheryl K. Reilly".

Sheryl K. Reilly, Ph.D., Chief  
Biochemical Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511C)

Enclosures

[Optional text]

RF-9811 EC

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator

[to Control Insect Pests in Tobacco Processing and Storage Facilities]

[to Prevent the Emergence of Adult Sciarid Flies In Mushroom Culture]

[To Control Stored Product Insects in Cereal Grains, Grain Sorghum (Milo), Corn (except Sweet Corn and Popcorn), Birdseed, and Peanuts]

[to Prevent the Emergence of Adult Filter Flies and Non-biting Midges in Waste Water Treatment Facilities]

**ACTIVE INGREDIENT:**

(S)-Methoprene (CAS #65733-16-6) ..... 33.6%

**OTHER INGREDIENTS\*:** ..... 66.4%

Total: ..... 100.0%

\*Contains petroleum distillates

This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

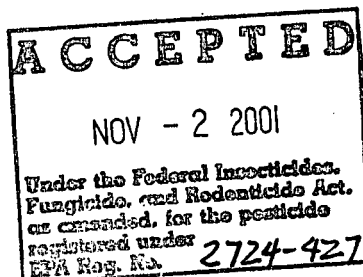
KEEP OUT OF REACH OF CHILDREN

**CAUTION**

See Back Panel for Additional Precautionary Statements

EPA Reg. No. 2724-427

NET CONTENTS:



EPA Est. No.

## PRECAUTIONARY STATEMENTS

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FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If swallowed	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [phone number] for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

(Include WPS for APEX Mushroom Use pattern)

### **[Personal Protective Equipment (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.]

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When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.]

**[IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.]

**[User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.]

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

[Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.]

### **[AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils)
- Shoes plus socks

Do not apply this product through any type of irrigation system.]

(Directions for Use for RF-9811 EC [DIANEX]-Stored Tobacco Products)

**INTRODUCTION:** RF-9811 EC is an emulsifiable formulation of the insect growth regulator, (S)-methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. RF-9811 EC, when used according to label directions, controls the following insects:

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply RF-9811 EC as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply RF-9811 EC at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of RF-9811 EC to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add RF-9811 EC, mix and complete filling with quantity of water specified above. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

(Directions for Use for DIACON -Stored Product Insects)

**PRODUCT INFORMATION:** (S)-methoprene, the active ingredient in DIACON®, protects stored grains from damaging insects by interfering with the normal process of insect development. Unlike traditional pesticides, DIACON is not an adulticide, but its residual activity prevents the development of larvae into adults. DIACON, when used according to the label directions, prevents regeneration of the following insects: almond moth, Indian meal moth, cigarette beetle, lesser grain borer, sawtooth grain beetle, merchant grain beetle, red flour beetle, and confused flour beetle. Treat existing insect populations with an adulticide before applying DIACON for residual protection.

If stored grain insect populations exceed 2 insects per 1 kg sample during storage, fumigate to avoid grain-damage from existing insects. Refer to Federal Grain Inspection Service regulations for stored grain for more information on sampling and insect thresholds.

**Stored Grain:** For protection of stored food, feed, oil and seed grains against stored grain insects - for optimum results, thoroughly clean and treat grain storage areas prior to storage of grain. DIACON may also be applied as a top-dressing to stored products that have already been placed into bins or storage areas. Use the rate of 2.5 - 5 ppm for this type of application. Do not flood top-dress area.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**GENERAL DIRECTIONS FOR TREATMENT OF GRAIN BEING STORED:** Dilute DIACON with water or FDA-approved food grade oils\* or soybean oil and apply to the moving grain stream as a coarse spray to give a deposit of 5 ppm of DIACON on the grain. Use a final water solution volume of 5 gallons of liquid per 1000 bushels of grain and 10 gallons of liquid per 1000 bushels of rice. Apply final spray volumes of oil solutions at the oil manufacturer's label application rates. Agitation of water or oil solutions is necessary.

For maximum residual and efficacy, use the rate of 5 ppm. For shorter term residual, lower rates may apply, but do not use rates less than 1 ppm.

DIACON is to be applied in solution in accordance with the general directions to stored products at the following rates per 1000 bushels to provide treatment with 5 ppm concentrations of DIACON. When using lower rates, use the appropriate amount of formulation to achieve the desired application rate:

	<b>5 ppm</b>		<b>2.5 ppm</b>		<b>1 ppm</b>	
	<u>fl oz</u>	<u>ml</u>	<u>fl oz</u>	<u>ml</u>	<u>fl oz</u>	<u>ml</u>
Wheat	7.70	228	4.0	114	1.54	46
Corn	7.10	212	3.5	106	1.42	43
Grain sorghum (Milo)	7.10	212	3.5	106	1.42	43
Barley	6.10	182	3.0	91	1.22	37
Rice	5.70	170	3.0	85	1.10	34
Oats	4.10	121	2.0	61	0.80	25
Peanuts*	3.85	115	2.0	60	0.80	24

\*For peanuts, use water solution only

#### **USE PRECAUTIONS:**

- Apply DIACON grain protectant only to grain of known treatment history, apply no more than once per crop.
- Check spray equipment calibration regularly to insure proper application rates.
- Add the measured amount of DIACON to a spray tank partially filled with water or mineral oil, mix and complete filling with specified quantity of carrier.
- Use diluted spray solution within 48 hours of mixing. Agitate before each use.
- Do not treat at extremely dusty sites.

DIACON may also be used as a fogging concentrate or surface spray for the treatment of warehouses, silos, storage bins or other stored commodity areas. For application of DIACON as a fogging or space spray, use the following directions.

**Application with Cold Aerosol Generators:** Apply DIACON as a mist or aerosol.

Dilute with water or oil as required following the instructions of the spray equipment manufacturer. Apply DIACON at the rate of 1 ml per 1000 square feet of surface area or 1 ml per 10 cu ft. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of DIACON to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add DIACON, mix and complete filling with quantity of water specified above. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

(Directions for Use for APEX – Mushrooms)

(S)-methoprene, the active ingredient in APEX® insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of (S)-methoprene does not result in immediate insect kill, it interferes with the normal process of insect development. APEX will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions, fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best overall results. After treatment with APEX, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than 2 weeks after treatment to assess the full benefit of APEX.

**METHOD, RATE, AND TIMING OF APPLICATION:** For best results, incorporate APEX in the mushroom growing medium.

Follow either **METHOD A, METHOD B, or METHOD C**  
Application Instructions.

**A. INCORPORATE IN CASING AT TIME OF CASING**

Apply APEX at the rate of 5½ fluid ounces per 1000 sq ft (fl oz/1000 sq ft). Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

**B. INCORPORATE IN COMPOST AT TIME OF SPAWNING AND IN CASING  
AT TIME OF PLACEMENT OF CASING LAYER**

**In Compost:** Apply APEX at the rate of 5½ fl oz/1000 sq ft in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

**In Casing:** Apply APEX at the rate of 2¼ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT  
TIME OF PLACEMENT OF CASING LAYER**

For those crops that have a 16-day or longer spawn run, a split application can be used.

**First Application, on compost:** Apply APEX 12-13 days after spawning. Drench APEX evenly on the surface at the rate of 2¾ fl oz/1000 sq ft in adequate water for even distribution.

**Second Application, in casing:** Apply APEX at the rate of 2¾ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**MIXING AND HANDLING INSTRUCTIONS**

1. Add the measured amount of APEX to a spray tank partially filled with water, mix, and complete filling with specified quantity of water.
2. Use diluted spray solution within 48 hours of mixing. Agitate before each use.

### **EFFECT ON MUSHROOMS**

In most cases, treatment with APEX has a beneficial effect on mushroom yield through control of damaging sciarid fly larvae. The user can determine if reduced crop yields will occur under his own cultural conditions by conducting test treatments on small plots.

## **DIRECTIONS FOR USE:**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

## **MIXING AND HANDLING INSTRUCTIONS:**

Partially fill spray container with water; then add the specified amount of RF-9811 EC, agitate, and complete filling. Agitate mildly during application. Agitation can be accomplished by use of recirculation pump, mixer, air pump, or other suitable equipment.

## **USE APPLICATIONS**

**Waste Water Treatment Facility Pests:** Use RF-9811 EC in trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water treatment facilities where non-biting midges, filter flies, and other nuisance aquatic insect pests are a problem.

### **What to Expect in Waste Water Treatment Facilities Continuous Flow Sewage (waste water)**

In order to achieve effective results, RF-9811 EC must be applied daily for at least 2 weeks. If applications are not made on a continuous basis, erratic results may occur. Following initial applications of RF-9811 EC, a gradual reduction in the number of adult pests will be seen over approximately a 1 week period. Reduction in adult populations will be very noticeable within a 2 week period following continuous application. Due to varying conditions or heavy infestations, a longer period may be necessary for control. Since the mode of action of RF-9811 EC is to prevent adult emergence, existing adults and pupa present at the time of initial application will complete their life cycle.

As adult suppression peaks, use a maintenance rate of RF-9811 EC for continuous protection from population rebound. However, if application of RF-9811 EC is halted following population suppression, rebound of the population can be expected within 2 to 3 weeks after stopping application. For continuous suppression throughout the pest season, continue applications of RF-9811 EC

### **Sludge or Solid Waste Applications**

For solid waste applications, use the initial high rate. Apply dilution until the drying beds have been filled. Following filling of the drying beds, halt the dilution application. Make applications of the dilution at the influent side as the sludge or solids enter into the drying beds. Application of RF-9811 EC to solids will prevent the emergence of adult insect pests thereby keeping infestations under control.

## **METHODS OF APPLICATION**

**Waste Water Treatment Facilities:** Dilute RF-9811 EC with water prior to use. Apply RF-9811 EC by using a metering pump, drip bucket, or other suitable equipment. Metering pumps are the most efficient and accurate method of application. The application method will influence appropriate product dilution. Depending on the dosage rate, prepare desired volume of dilution to apply over a 24 hour period (day tank), or in cases of sludge beds, applied until the beds have been filled. When using delivery devices, it is important to calibrate the device to deliver the required amount of RF-9811 EC over a 24 hour period. Mix sufficient material in advance to provide for applications longer than 24 hours. Metering pumps that are capable of delivering material for more than 24 hours will provide best results.

## **APPLICATION RATE**

**Waste Water Treatment Pests:**

**Initial Application** - 2.5 to 3.0 ounces of RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side over a 24 hour period.

**Maintenance Rate** - 1.5 to 2.0 ounces RF-9811 EC per 1 million gallons of sewage waste water in sufficient water to apply uniformly at the influent side over a 24 hour period.

To achieve effective results, use initial application rates on a daily basis for 2 weeks, without interruption. Use sufficient water/RF-9811 EC to achieve uniform application to sewage (waste water) over a 24 hour period. Make application of the dilution at the influent side of the particular area to be treated.]

Maintain initial rate of application for 2 weeks and then for continued effectiveness, follow the directions for the maintenance rate.

## **APPLICATION SITES**

**Waste Water Treatment Facilities:** Make applications of RF-9811 EC to sewage as it flows into trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water facilities where pests are a problem.

Make RF-9811 EC applications as the sewage enters (influent areas) the targeted processing area. Failure to add the material at the influent side may result in erratic results.

**STORAGE and DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. **Storage** - Store in a cool dry place. **Pesticide Disposal** - Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal - [Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

#### **WARRANTY AND CONDITIONS OF SALE**

Seller makes no warranty, express or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

APEX®, DIACON®, and DIANEX®, are registered trademarks of Wellmark International.

Wellmark International  
Schaumburg IL 60173

Made in USA

For information or in case of an emergency, call 1-800-XXX-XXXX.  
Visit our Web site: [web site address]



October 25, 2001

Mr. James Downing  
Office of Pesticide Programs (H7504C)  
U.S. Environmental Protection Agency  
Room 910, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA. 22202

**SUBJECT: Response to EPA Science Review in Support of a Label and Formulation Amendment for RF-9811 EC (Zoecon RF-342 Emulsifiable Concentrate - EPA Reg. No. 2724-427)**

Dear Jim:

Per our telephone conversation this morning, I am including a revised Confidential Statement of Formula (CSF) and comments related to the conclusions and recommendations from the above-referenced science review dated October 23, 2001.

- 1a.) A 14-Month Interim Storage Stability and Package Compatibility Study on RF-9811 EC (Study #2684) has been completed and will be submitted by separate correspondence directly to the Document Processing Desk. As stated in the science review, the study will be completed in 9/2002 at which time we will submit the final report to the Agency.
- 1b.) We did not provide a discussion of the formation of impurities since we believe this requirement relates only to the active ingredient and not the formulation which is the subject of this amendment. However, Wellmark formulation chemists provided me with the following brief discussion of the formulation of impurities to include with this letter:

*The product is produced in a formulation process and not as an integrated system. No known additional impurities are formed during the formulation process that are not already in the technical grade of active ingredient, (S)-methoprene. This active ingredient, being an unsaturated sesquiterenoid diene conjugated with carboxylate ester is susceptible to both free-radical oxidative degradation and UV induced photolysis.*

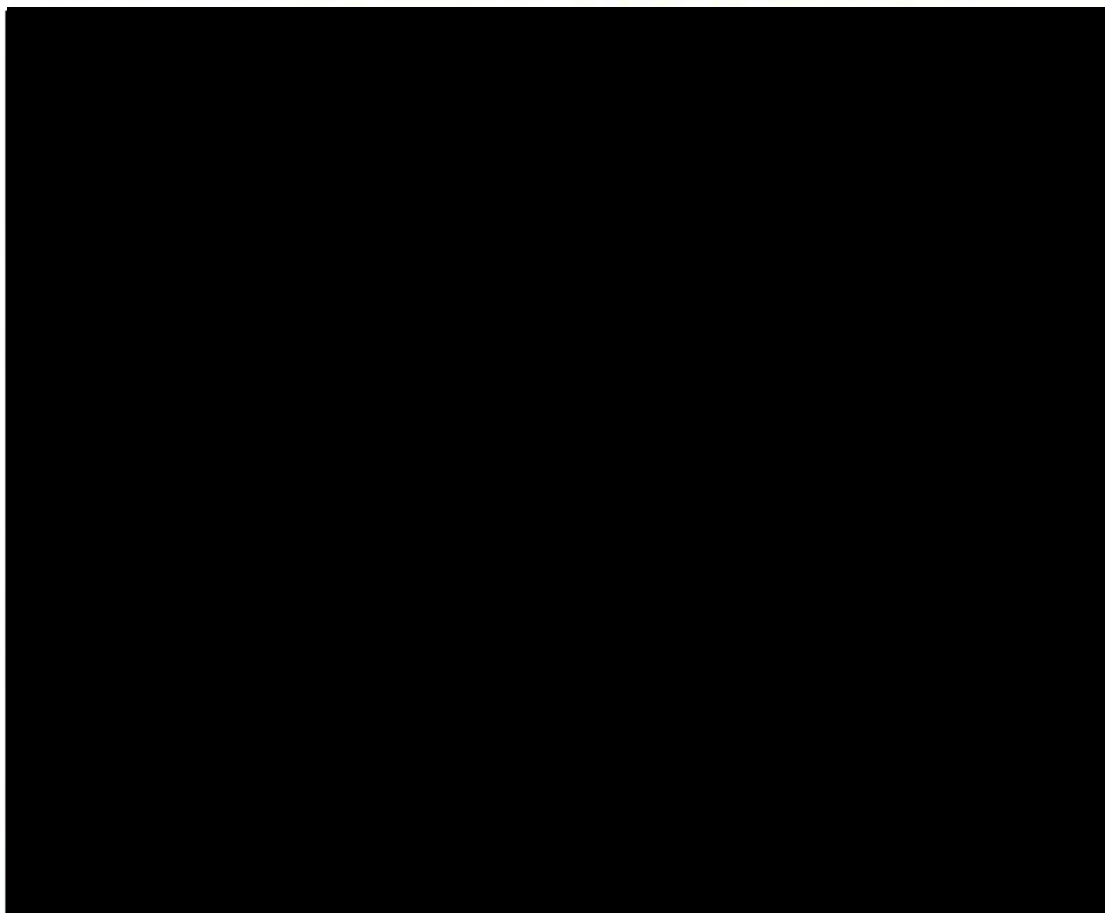
[REDACTED]

- 2.) A revised CSF is included with this letter designating the correct CAS # for [REDACTED] [REDACTED] has been removed from the Supplier Column on the CSF.

\*Inert ingredient information may be entitled to confidential treatment\*

- 5.) We have verified that all inert ingredients in RF-9811 EC are cleared for food use in subparagraph (c) of 40 CFR 180.1001 and are identified in that section as follows:

Trade/Common Name and (CAS Number) as designated on the CSF  
40 CFR Subpart D Subparagraph Section 180.1001 Subparagraph (c) Designation




- 6.) Product performance studies were not submitted for midges since we do not believe that midges found in wastewater treatment facilities are vectors for disease transmission and therefore are not considered public health pests.
- 7.) In the cover letter for this amendment dated September 18, 2000, we requested in point 4 that the primary brand name be changed from Zoecon RF-342 Emulsifiable Concentrate to RF-9811 EC in order to avoid future confusion about these different formulations. The label submitted with the September 2000 amendment indicated the product name as RF9811 EC; however, the product name on the CSF was designated Zoecon RF-342 Emulsifiable Concentrate (RF9811-EC). In order to avoid confusion, the product name on the revised CSF included with this letter has been revised to RF-9811 EC which is now consistent with the product label. Please take steps to initiate the change in the primary brand name of this product within EPA databases to RF-9811 EC.

The science review also indicated that the phrase "in POTW Facilities" must be added after "Filter Flies" and the word "Midges" must be removed. The efficacy study submitted with the amendment was conducted in three Public Owned Treatment Works (POTW) in Kansas. These facilities are examples of the broader category of "Wastewater

Treatment Sites" included on the master label and therefore we do not believe that we should be restricted to the more specific site just because the efficacy study included with the amendment was conducted in POTW's. In addition, we do not believe that midges should be removed from the label because they are not public health pests in wastewater treatment sites.

Please contact me at (847) 330-5380 if you have any questions.

Sincerely yours,

  
Steven R. Spaulding  
Manager, Regulatory Affairs



September 28, 2001

Mr. James Downing  
Office of Pesticide Programs 7504C  
U.S. Environmental Protection Agency  
Room 910 Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, Virginia 22202

SUBJECT: CLEAN LABELS FOR EPA STAMPED APPROVAL FOR  
ZOECON® RF-342 (RF9811) EMULSIFIABLE CONCENTRATE  
EPA REG. NO. 2724-427

Dear Jim:

Per your phone conversation with Steve Spaulding this afternoon, I've enclosed 5 clean copies of the above label including your requested suggestions. A copy of this label will be stamped approved and returned to Wellmark for state registration purposes. Sorry, the email version didn't work out. Thanks for all your help to finalize this project. If you need anything further, give me (847) 330-5376 or Steve (847) 330-5380 a call.

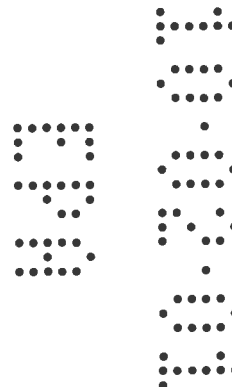
Yours sincerely,  
WELLMARK INTERNATIONAL

A handwritten signature in cursive script that reads "Nancy Huebl".

Nancy Huebl  
Regulatory Specialist

Enclosure

cc: S. Spaulding



Label Review Sheet

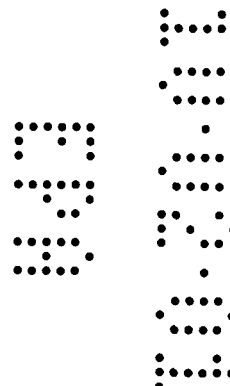
<b>FILENAME:</b>	g:\regulatory\LABELS\CAHSPEC\02724427\pz342ECA 00A	<b>COVERSHEET UPDATE:</b>	September 2000
<b>PRODUCT:</b>	ZOECON RF-342 (RF9811) EMULSIFIABLE CONCENTRATE	<b>EPA REG. NO.:</b>	2724-427
<b>APPROVED:</b>	Amendment submitted 9/00 <b>SUPERSEDES:</b>		

**OVERVIEW:** Transfer use patterns (mushrooms/APEX – 2724-452 and stored grains/Altosid 5E-FZ-515/DIACON – 2724-477) from R/S methoprene formulation to S-methoprene formulation; Add new pests – filter flies and midges (registered as pests under Zoecon RF437 Mosquito Growth Regulator, 2724-446 - 20% S-methoprene)  
Change primary brand name from Zoecon RF-342 Emulsifiable Concentrate for Tobacco to RF-9811 EC (DIANEX)

Red text represents revisions to RF 342 EC (now RF-9811EC), added text in other colored areas (DFU's) is underlined, any text to be deleted is marked as strikethrough

Page #	Description of Major Changes
1	Header revised to reflect change in primary brand name (see above overview) include pests/sites from APEX/DIACON labels, new pests/sites added (filter flies/midges)  Ingredient Statement: Chemical name dropped, added CAS # - PRN 97-5  "Inert" changed to "Other" – PRN 97-6  Added asterisk following "Other Ingredients" to indicate that formulation contains petroleum distillates
2-3	Precautionary Statements – Updated per 12/96 Label Review Manual, tox data submitted, included WPS language from APEX label  First Aid statements added per PRN 2000-3  Optional Worker Protection Standard language added to reflect APEX mushroom use pattern, revised based on changed formulation – new chemical resistance category (F to E), revised types of chemical-resistant gloves, added Engineering Controls section, added User Safety Recommendations box  Environmental Hazards – added optional text relevant to filter fly/midge aquatic use only  Physical/Chemical Hazard statement removed based on new formulation's flashpoint
4	Optional WPS Ag Use box added/revised PPE based on formulation change (for APEX/mushroom use)  Added optional "Do not apply... irrigation system" (for APEX label)

5	Directions for Use/DIANEX – First paragraph, added “S” to methoprene revised name to reflect new formulation
6	Added DFU from DIACON label with revisions as follows: Methoprene revised to S-methoprene, “5E” removed from product name First paragraph/last sentence – “fumigated” changed to “treated” – clarity Second Paragraph – added “ <u>1 kg</u> sample...”, clarity, added FGIS reference statement. Stored Grain: Additional application method – top dressing for already stored products General Directions/Rate table: added shorter residue, lower rates
7	Additional DIACON DFU revisions: Dilution chart, added lower rates (2ppm, 1ppm) dilution figures  Directions (same as DIANEX DFU) for fogging, space spray added for DIACON
8-9	Added DFU from APEX label – removed “5E” from name
10-11	Added DFU for filter flies/midges – waste water treatment facilities
12	Added trademark reference Information reference – added “or in case of an emergency” (stewardship) Added web site statement



[Optional text]

RF-9811 EC

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator for the Control of

[Insect Pests in Tobacco Processing and Storage Facilities]

[to Prevent the Emergence of Adult Sciarid Flies In Mushroom Culture]

[Stored Product Insects in Cereal Grains, Grain Sorghum (Milo), Corn (except Sweet Corn and Popcorn), Birdseed, and Peanuts]

[to Prevent the Emergence of Adult Filter Flies and Midges]

*Non-biting in Waste Water Treatment Facilities*

**ACTIVE INGREDIENT:**

(S)-Methoprene (CAS #65733-16-6) ..... 33.6%

**OTHER INGREDIENTS\*:** ..... 66.4%

Total: ..... 100.0%

\*Contains petroleum distillates

This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

KEEP OUT OF REACH OF CHILDREN

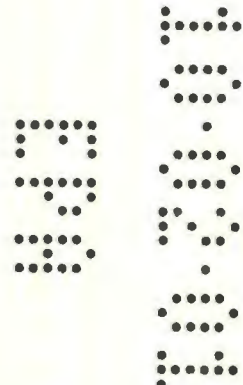
**CAUTION**

See Back Panel for Additional Precautionary Statements

EPA Reg. No. 2724-427

EPA Est. No.

NET CONTENTS:



## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If swallowed	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [phone number] for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

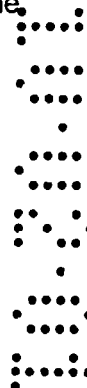
(Include WPS for APEX Mushroom Use pattern)

### **[Personal Protective Equipment (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.]

### **[Engineering Controls Statements:**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.]



**[IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.]

**[User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.]

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

[Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.]

#### **[AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils)
- Shoes plus socks

Do not apply this product through any type of irrigation system.]

(Directions for Use for RF-9811 EC [DIANEX]-Stored Tobacco Products)

**INTRODUCTION:** RF-9811 EC is an emulsifiable formulation of the insect growth regulator, (S)-methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. RF-9811 EC, when used according to label directions, controls the following insects:

Almond moth (*Ephestia cautella*)

Cigarette beetle (*Lasioderma serricorne*)

Sawtooth grain beetle (*Oryzaephilus surinamensis*)

Red flour beetle (*Tribolium castaneum*)

Tobacco moth (*Ephestia elutella*)

Indian meal moth (*Plodia interpunctella*)

Lesser grain borer (*Rhyzopertha dominica*)

Merchant grain beetle (*Oryzaephilus mercator*)

Confused flour beetle (*Tribolium confusum*)

Warehouse beetle (*Trogoderma* spp.)

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply RF-9811 EC as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply RF-9811 EC at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of RF-9811 EC to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add RF-9811 EC, mix and complete filling with quantity of water specified above. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

(Directions for Use for DIACON -Stored Product Insects)

**PRODUCT INFORMATION:** (S)-methoprene, the active ingredient in DIACON®, protects stored grains from damaging insects by interfering with the normal process of insect development. Unlike traditional pesticides, DIACON is not an adulticide, but its residual activity prevents the development of larvae into adults. DIACON, when used according to the label directions, prevents regeneration of the following insects: almond moth, Indian meal moth, cigarette beetle, lesser grain borer, sawtooth grain beetle, merchant grain beetle, red flour beetle, and confused flour beetle. Treat existing insect populations with an adulticide before applying DIACON for residual protection.

If stored grain insect populations exceed 2 insects per 1 kg sample during storage, fumigate to avoid grain-damage from existing insects. Refer to Federal Grain Inspection Service regulations for stored grain for more information on sampling and insect thresholds.

**Stored Grain:** For protection of stored food, feed, oil and seed grains against stored grain insects - for optimum results, thoroughly clean and treat grain storage areas prior to storage of grain. DIACON may also be applied as a top-dressing to stored products that have already been placed into bins or storage areas. Use the rate of 2.5 - 5 ppm for this type of application. Do not flood top-dress area.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**GENERAL DIRECTIONS FOR TREATMENT OF GRAIN BEING STORED:** Dilute DIACON with water or FDA-approved food grade oils\* or soybean oil and apply to the moving grain stream as a coarse spray to give a deposit of 5 ppm of DIACON on the grain. Use a final water solution volume of 5 gallons of liquid per 1000 bushels of grain and 10 gallons of liquid per 1000 bushels of rice. Apply final spray volumes of oil solutions at the oil manufacturer's label application rates. Agitation of water or oil solutions is necessary.

For maximum residual and efficacy, use the rate of 5 ppm. For shorter term residual, lower rates may apply, but do not use rates less than 1 ppm.

DIACON is to be applied in solution in accordance with the general directions to stored products at the following rates per 1000 bushels to provide treatment with 5 ppm concentrations of DIACON. When using lower rates, use the appropriate amount of formulation to achieve the desired application rate:

	<u>5 ppm</u>		<u>2.5 ppm</u>		<u>1 ppm</u>	
	<u>fl oz</u>	<u>ml</u>	<u>fl oz</u>	<u>ml</u>	<u>fl oz</u>	<u>ml</u>
Wheat	7.70	228	4.0	114	1.54	46
Corn	7.10	212	3.5	106	1.42	43
Grain sorghum (Milo)	7.10	212	3.5	106	1.42	43
Barley	6.10	182	3.0	91	1.22	37
Rice	5.70	170	3.0	85	1.10	34
Oats	4.10	121	2.0	61	0.80	25
Peanuts*	3.85	115	2.0	60	0.80	24

\*For peanuts, use water solution only

### USE PRECAUTIONS:

- Apply DIACON grain protectant only to grain of known treatment history, apply no more than once per crop.
- Check spray equipment calibration regularly to insure proper application rates.
- Add the measured amount of DIACON to a spray tank partially filled with water or mineral oil, mix and complete filling with specified quantity of carrier.
- Use diluted spray solution within 48 hours of mixing. Agitate before each use.
- Do not treat at extremely dusty sites.

DIACON may also be used as a fogging concentrate or surface spray for the treatment of warehouses, silos, storage bins or other stored commodity areas. For application of DIACON as a fogging or space spray, use the following directions.

**Application with Cold Aerosol Generators:** Apply DIACON as a mist or aerosol.

Dilute with water or oil as required following the instructions of the spray equipment manufacturer. Apply DIACON at the rate of 1 ml per 1000 square feet of surface area or 1 ml per 10 cu ft. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of DIACON to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add DIACON, mix and complete filling with quantity of water specified above. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

(Directions for Use for APEX – Mushrooms)

(S)-methoprene, the active ingredient in APEX® insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of (S)-methoprene does not result in immediate insect kill, it interferes with the normal process of insect development. APEX will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions, fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best overall results. After treatment with APEX, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than 2 weeks after treatment to assess the full benefit of APEX.

**METHOD, RATE, AND TIMING OF APPLICATION:** For best results, incorporate APEX in the mushroom growing medium.

Follow either **METHOD A, METHOD B, or METHOD C**  
Application Instructions.

**A. INCORPORATE IN CASING AT TIME OF CASING**

Apply APEX at the rate of 5½ fluid ounces per 1000 sq ft (fl oz/1000 sq ft). Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

**B. INCORPORATE IN COMPOST AT TIME OF SPAWNING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

**In Compost:** Apply APEX at the rate of 5½ fl oz/1000 sq ft in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

**In Casing:** Apply APEX at the rate of 2¼ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

For those crops that have a 16-day or longer spawn run, a split application can be used.

**First Application, on compost:** Apply APEX 12-13 days after spawning. Drench APEX evenly on the surface at the rate of 2¾ fl oz/1000 sq ft in adequate water for even distribution.

**Second Application, in casing:** Apply APEX at the rate of 2¾ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**MIXING AND HANDLING INSTRUCTIONS**

1. Add the measured amount of APEX to a spray tank partially filled with water, mix, and complete filling with specified quantity of water.
2. Use diluted spray solution within 48 hours of mixing. Agitate before each use.

#### **EFFECT ON MUSHROOMS**

In most cases, treatment with APEX has a beneficial effect on mushroom yield through control of damaging sciarid fly larvae. The user can determine if reduced crop yields will occur under his own cultural conditions by conducting test treatments on small plots.

*non-biting*  
Directions for Use for midges/filter flies

**DIRECTIONS FOR USE:**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**MIXING AND HANDLING INSTRUCTIONS:**

Partially fill spray container with water; then add the specified amount of RF-9811 EC, agitate, and complete filling. Agitate mildly during application. Agitation can be accomplished by use of recirculation pump, mixer, air pump, or other suitable equipment.

**RECOMMENDED APPLICATIONS**

**Waste Water Treatment Facility Pests:** Use RF-9811 EC in trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water treatment facilities where midges, filter flies, and other nuisance aquatic insect pests are a problem. *non-biting*

**What to Expect in Waste Water Treatment Facilities**

**Continuous Flow Sewage (waste water)**

In order to achieve effective results, RF-9811 EC must be applied daily for at least 2 weeks. If applications are not made on a continuous basis, erratic results may occur. Following initial applications of RF-9811 EC, a gradual reduction in the number of adult pests will be seen over approximately a 1 week period. Reduction in adult populations will be very noticeable within a 2 week period following continuous application. Due to varying conditions or heavy infestations, a longer period may be necessary for control. Since the mode of action of RF-9811 EC is to prevent adult emergence, existing adults and pupa present at the time of initial application will complete their life cycle.

As adult suppression peaks, use a maintenance rate of RF-9811 EC for continuous protection from population rebound. However, if application of RF-9811 EC is halted following population suppression, rebound of the population can be expected within 2 to 3 weeks after stopping application. For continuous suppression throughout the pest season, continue applications of RF-9811 EC

**Sludge or Solid Waste Applications**

For solid waste applications, use the initial high rate. Apply dilution until the drying beds have been filled. Following filling of the drying beds, halt the dilution application. Make applications of the dilution at the influent side as the sludge or solids enter into the drying beds. Application of RF-9811 EC to solids will prevent the emergence of adult insect pests thereby keeping infestations under control.

## **METHODS OF APPLICATION**

**Waste Water Treatment Facilities:** Dilute RF-9811 EC with water prior to use. Apply RF-9811 EC by using a metering pump, drip bucket, or other suitable equipment. Metering pumps are the most efficient and accurate method of application. The application method will influence appropriate product dilution. Depending on the dosage rate, prepare desired volume of dilution to apply over a 24 hour period (day tank), or in cases of sludge beds, applied until the beds have been filled. When using delivery devices, it is important to calibrate the device to deliver the required amount of RF-9811 EC over a 24 hour period. Mix sufficient material in advance to provide for applications longer than 24 hours. Metering pumps that are capable of delivering material for more than 24 hours will provide best results.

## **APPLICATION RATE**

**Waste Water Treatment Pests:**

**Initial Application** - 2.5 to 3.0 ounces of RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side over a 24 hour period.

**Maintenance Rate** - 1.5 to 2.0 ounces RF-9811 EC per 1 million gallons of sewage waste water in sufficient water to apply uniformly at the influent side over a 24 hour period.

To achieve effective results, use initial application rates on a daily basis for 2 weeks, without interruption. Use sufficient water/RF-9811 EC to achieve uniform application to sewage (waste water) over a 24 hour period. Make application of the dilution at the influent side of the particular area to be treated.]

Maintain initial rate of application for 2 weeks and then for continued effectiveness, follow the directions for the maintenance rate.

## **APPLICATION SITES**

**Waste Water Treatment Facilities:** Make applications of RF-9811 EC to sewage as it flows into trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water facilities where pests are a problem.

Make RF-9811 EC applications as the sewage enters (influent areas) the targeted processing area. Failure to add the material at the influent side may result in erratic results.

**STORAGE and DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. **Storage** - Store in a cool dry place. **Pesticide Disposal** - Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal - [Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

#### **WARRANTY AND CONDITIONS OF SALE**

Seller makes no warranty, express or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

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Schaumburg IL 60173

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Visit our Web site: [web site address]

Wellmark

September 18, 2000

Document Processing Desk (AMEND)  
Office of Pesticide Programs (H7504C)  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA. 22202

Attn: Dr. Sheryl Reilly  
Biopesticides and Pollution Prevention Division

**SUBJECT: Zoecon RF-342 Emulsifiable Concentrate – EPA Reg. No. 2724-427  
Formulation and Label Amendment**

Dear Dr. Reilly:

Please find enclosed an Application for a Formulation and Label Amendment for the above-referenced product. RF-342 Emulsifiable Concentrate (DIANEX) is an Insect Growth Regulator (IGR) containing 33.6% S-Methoprene for the control of insect pests in tobacco processing and storage facilities. The objectives of this amendment application are as follows:

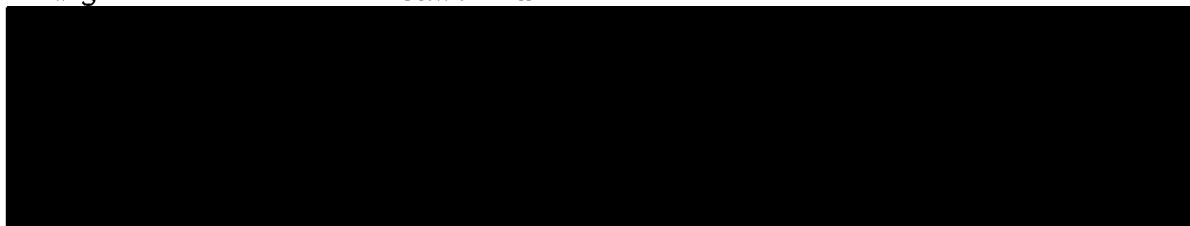
1. Change the emulsifier/solvent system in the current RF-342 EC formulation to remove a potential eye irritant.
2. Transfer use patterns from two registered R/S-Methoprene formulations to RF-342 Emulsifiable Concentrate containing S-Methoprene. This strategy is consistent with Wellmark plans to phase-out production of R/S-Methoprene. Wellmark submitted an application for formulation amendments to the Agency on February 22, 2000 to convert eight (8) end-use products containing R/S-Methoprene to S-Methoprene. These amendments are based on the rationale that the two active ingredients behave essentially the same in end-use formulations with respect to safety and efficacy.
3. Add filter flies and midges as a new pest species to the RF-342 Emulsifiable Concentrate label.
4. Change the primary brand name from Zoecon RF-342 Emulsifiable Concentrate to RF-9811 EC to avoid future confusion.

A brief overview of the products and nomenclature involved in this amendment is as follows:

EPA Product Name	Wellmark Tradename	Research Formula	EPA Reg. No.
Zoecon RF-342 Emulsifiable Concentrate	DIANEX	RF-342 (current)	2724-427
RF-9811 EC	DIANEX, APEX, DIACON	RF-9811 (amended)	2724-427
APEX 5E	APEX	RF-174	2724-452
ALTOSID 5E-FZ-515	DIACON	RF-174	2724-477

#### RF-342 Emulsifiable Concentrate Formulation Amendment

Wellmark initiated efforts to reformulate RF-342 Emulsifiable Concentrate following indications that this formulation may be a possible eye irritant. A 6(a)(2) Adverse Incident was submitted to the Agency on May 3, 2000 in relation to an eye irritation study conducted with this formulation (MRID #45113701). The emulsifier [REDACTED] was suspected as being responsible for the eye irritation and therefore was removed from the formulation and replaced with a reformulated emulsifier system including the new inert ingredient [REDACTED]. The new amended Formulation RF-9811 EC reflects the following changes to the emulsifier/solvent system and the changes are outlined in detail in Attachment I:



[REDACTED] are new inert ingredients which have been added to the amended basic formulation and these inerts are exempt from the requirements of a tolerance under 40CFR 180.1001c and cleared for food use. The nominal concentration of the active ingredient S-Methoprene remains the same at 33.6%. An ocular irritation study conducted with the amended basic formulation RF9811 EC is included with this submission and showed only mild ocular irritation supporting Tox Category III with a CAUTION signal word which is currently on the approved label.

#### RF-342 Emulsifiable Concentrate Label Amendment

Wellmark proposes to amend the RF-342 Emulsifiable Concentrate label by transferring use patterns from the following 66.0% R/S-Methoprene registered products to the RF-342 Emulsifiable Concentrate label containing 33.6% S-Methoprene:

- APEX 5E – EPA Reg. No. 2724-452 – an insect growth regulator to prevent the emergence of adult sciarid flies in mushroom culture.
- DIACON – EPA Reg. No. 2724-477 – an insect growth regulator for stored product insects in cereal grains, grain sorghum (milo), corn (except sweet corn and popcorn), birdseed and peanuts.

In addition, Wellmark proposes to add filter flies and midges as new pest species to the RF-342 Emulsifiable Concentrate label. These pests have been previously approved on another liquid S-Methoprene formulation (EPA Reg. No. 2724-446).

Three efficacy studies to support all of the above pests and use patterns as well as the biological equivalency of R/S-Methoprene and S-Methoprene are included with this submission. All use patterns have been incorporated into 1 amended master label for RF-342 Emulsifiable Concentrate which will include four different Wellmark products: DIANEX, APEX, DIACON and a Wastewater Treatment Plant product for midges and filter flies.

#### Product Chemistry

A Self-Certification Summary for the Physical/Chemical Properties of RF-9811 EC, an updated Validated Analytical Method and a Description of Beginning Materials and Manufacturing Procedures specific to RF-9811 EC are included with this submission.

#### Toxicology

Acute ocular irritation and acute inhalation toxicology studies were repeated with the RF-9811 EC formulation to confirm reduced ocular irritation and to generate confirmatory data to support precautionary label language for a CAUTION signal word as is currently approved on the RF-342 Emulsifiable Concentrate label. Acute oral and dermal toxicity studies and dermal irritation and skin sensitization studies with the similar and current basic formulation of RF-342 Emulsifiable Concentrate are also included as supportive data in this submission. These acute toxicology studies with RF-342 Emulsifiable Concentrate were part of a complete battery of acute studies conducted in 1988 in anticipation that these studies would be required as part of the Phase 5 Reregistration data requirements. However, these studies subsequently were not required by the Agency and therefore not submitted at that time. The original precautionary labeling for RF-342 Emulsifiable Concentrate when the product was first registered in 1989 was based on the acute toxicity of the active ingredients R/S- and S-Methoprene.

A summary of the following acute studies indicates data supportive of Category III / IV precautionary labeling with a CAUTION signal word. There is no reason to believe that RF-9811 EC is more acutely toxic or has greater sensitization potential than RF-342 Emulsifiable Concentrate.

Acute Oral LD50 -	>5100 mg/kg - Tox Category IV (RF-342)
Acute Dermal LD50 -	>2100 mg/kg - Tox Category III (RF-342)
Dermal Irritation -	Moderately Irritating - Tox Category III (RF-342)
Eye Irritation -	Mildly Irritating - Tox Category III (RF-9811)
Dermal Sensitization -	Not a Dermal Sensitizer (RF-342)
Acute Inhalation	>2.009 mg/l - Tox Category IV (RF-9811)

#### Product Performance

Results from efficacy studies included with this submission and conducted with the new amended RF9811 EC formulation indicated the following:

1. Studies conducted at the University of Guelph, Canada indicated that both the 65.3% R/S-Methoprene EC formulation (APEX) and the 33.3% S-Methoprene EC formulation (RF9811 DIANEX EC) were effective in preventing the emergence of adult sciarid flies in mushroom cultures.

2. Studies conducted by the USDA Grain Marketing and Research Center in Manhattan, Kansas indicated that both the 65.3% R/S-Methoprene EC Formulation (DIACON) and the 33.3% S-Methoprene EC Formulation (DIANEX) was effective in controlling 3 species of stored product pest beetles in wheat for 6 months.
3. Studies conducted by Johnson County, Kansas Environmental indicated that the 33.3% S-Methoprene EC formulation (DIANEX) was efficacious in preventing the emergence of adult filter flies in trickling filter water treatment plants.

The following documentation is being submitted in support of this formulation and label amendment:

1. Application for Pesticide Amendment – EPA Form 8570-1
2. Attachment I – Comparative Overview of RF-342 EC Formulation and Label Amendment.
3. Confidential Statement of Formula for the Reformulated Basic Formulation (2 copies)
4. Master Labels – 1 color copy highlighting revisions and 5 clean copies with revisions incorporated.
5. Supportive Data Submissions (3 Copies):

- |           |  |
|-----------|--|
| Volume 1. | Wilkins, F.C. (2000). Self-Certification Summary for the Physical/Chemical Properties of RF9811 EC. Report #2700. Wellmark International. Dallas, TX.  |
| Volume 2. | Thornton, K. (1999). Specificity, Precision and Accuracy of a Chemical Analysis Procedure (CAP) for the Assay of RF9811 EC by Capillary Gas Chromatography. Study #2532. Wellmark International. Dallas, TX. |
| Volume 3. | McDaniel, J. (2000). RF9811 EC: Description of Beginning Materials and Manufacturing Procedure. Report # 2533. Wellmark International. Dallas, TX.   |
| Volume 4. | Michlewicz, K.G. (1988). Acute Oral Toxicity Study of Dianex RF-342 in Rats. SLS Study 3122.6. Springborn Life Sciences. Spencerville, OH.   |
| Volume 5. | Michlewicz, K.G. (1988). Acute Dermal Toxicity Study of Dianex RF-342 in Rabbits. SLS Study 3122.7. Springborn Life Sciences. Spencerville, OH.  |
| Volume 6. | Findlay, J. (2000). Acute Eye Irritation Study of RF9811 EC in Rabbits. Study #1313 SN3. ITT Research Institute. Chicago, IL.  |
| Volume 7. | Michlewicz, K.G. (1988). Primary Skin Irritation Study of Dianex RF-342 in Rabbits. SLS Study 3122.9. Springborn Life Sciences. Spencerville, OH.  |
| Volume 8. | Michlewicz, K.G. (1988). Delayed Contact Hypersensitivity Study in Guinea Pigs with Dianex RF-342. SLS Study 3122.10. Springborn Life Sciences. Spencerville, OH.  |
| Volume 9. | Sullivan, D.M. (2000). Acute Nose-Only Inhalation Toxicity Study Of Liquid Sample RF9811 EC in Rats (Limit Test). Study #1332-001 SN1. ITT Research Institute. Chicago, IL.                                  |

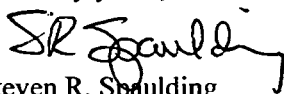
- Volume 10. Rinker, D. & G. Alm. (2000). Efficacy of Apex Formulations against Mushroom Sciarid Flies. University of Guelph, Ontario, Canada.
- Volume 11. Arthur, F. (2000). Residual Efficacy of Two Formulations of Methoprene to Control Beetles in Stored wheat. USDA Grain Marketing and Research Center. Manhattan, KS.
- Volume 12. Wittek, P. (2000). Effective Filter Fly Control. Johnson County Environmental. Lenexa, KS.

In conclusion, product chemistry and manufacturing data, acute toxicology studies, product performance studies and an expanded master label incorporating use patterns from registered R/S-Methoprene EC formulations into the registered S-Methoprene EC formulation label are included in this amendment for Zoecon RF-342 Emulsifiable Concentrate. It is our intention to gradually phase-out and eventually cancel all R/S-Methoprene end-use product registrations as inventories of R/S-Methoprene are depleted over the next 2 years. In addition to the label amendment, the formulation was amended as well in order to replace [REDACTED] which was suspected as an eye irritant. An ocular irritation study conducted with the RF9811 EC formulation confirmed the lack of eye irritation with the new amended formulation. We also propose to use this as an opportunity to notify the Agency to change the primary brand name from Zoecon RF-342 Emulsifiable Concentrate to RF-9811 EC in order to avoid confusion between these two similar research formulas in the future.

The new amended formulation and label for RF-9811 EC will provide: (1) an improved formulation containing a new non-irritating emulsifier and (2) an expanded master label including tobacco pests (DIANEX), sciarid flies (APEX), stored product pests (DIACON) and filter flies and midges as new dipteran pest species.

Please contact me at (847) 330-5380 if you have any questions.

Sincerely yours,

  
Steven R. Spaulding  
Manager, Regulatory Affairs

## TRANSMITTAL DOCUMENT

### NAME AND ADDRESS OF SUBMITTER:

Wellmark International  
1100 East Woodfield Road  
Suite 5000  
Schaumburg, Illinois 60173

### REGULATORY ACTION SUPPORTED BY THIS SUBMISSION

Formulation and label amendment for Zoecon RF-342 Emulsifiable Concentrate (EPA Reg. No. 2724-427).

### TRANSMITTAL DATE

September 18, 2000

### LIST OF SUBMITTED STUDIES

- |                               |   |
|-------------------------------|---|
| Volume 1.<br>45214401         | Wilkins, F.C. (2000). Self-Certification Summary for the Physical/Chemical Properties of RF9811 EC. Report #2700. Wellmark International. Dallas, TX.   |
| Volume 2.<br>45214402         | Thornton, K. (2000). Specificity, Precision and Accuracy of a Chemical Analysis Procedure (CAP) for RF9811 EC by Capillary Gas Chromatography. Study #2532. Wellmark International. Dallas, TX. |
| Volume 3.<br>45214403         | McDaniel, J. (2000). RF9811 EC: Description of Beginning Materials and Manufacturing Procedure. Report # 2533. Wellmark International. Dallas, TX.  |
| Volume 4.<br>45214404         | Michlewicz, K.G. (1988). Acute Oral Toxicity Study of Dianex RF-342 in Rats. SLS Study 3122.6. Springborn Life Sciences. Spencerville, OH.  |
| Volume 5.<br>45214405         | Michlewicz, K.G. (1988). Acute Dermal Toxicity Study of Dianex RF-342 in Rabbits. SLS Study 3122.7. Springborn Life Sciences. Spencerville, OH.   |
| Volume 6.<br>45214406         | Michlewicz, K.G. (1988). Primary Skin Irritation Study of Dianex RF-342 in Rabbits. SLS Study 3122.9. Springborn Life Sciences. Spencerville, OH.   |
| 6(a)(2) Volume 7.<br>45214407 | Findlay, J. (2000). Acute Eye Irritation Study of RF9811 EC in Rabbits. Study #1313 SN3. ITT Research Institute. Chicago, IL.   |
| Volume 8.<br>45214408         | Michlewicz, K.G. (1988). Delayed Contact Hypersensitivity Study in Guinea Pigs with Dianex RF-342. SLS Study 3122.10. Springborn Life Sciences. Spencerville, OH.                               |

- Volume 9. Sullivan, D.M. (2000). Acute Nose-Only Inhalation Toxicity Study  
45214409 Of Liquid Sample RF9811 EC in Rats (Limit Test). Study #1332-001 SN1. ITT  
Research Institute. Chicago, IL.
- Volume 10. Rinker, D. & G. Alm. (2000). Efficacy of Apex Formulations against Mushroom  
45214410 Sciariid Flies. University of Guelph, Ontario, Canada.
- Volume 11. Arthur, F. (2000). Residual Efficacy of Two Formulations of Methoprene to  
45214411 Control Beetles in Stored Wheat. USDA Grain Marketing and Research Center.  
Manhattan, KS.
- Volume 12. Wittek, P. (2000). Effective Filter Fly Control. Johnson County Environmental.  
45214412 Lenexa, KS.

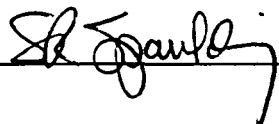
COMPANY NAME: WELLMARK INTERNATIONAL

COMPANY AGENT: Steven R. Spaulding  
Manager, Regulatory Affairs  
Wellmark International  
1100 East Woodfield Road  
Schaumburg, IL. 60173

COMPANY CONTACT: Steven R. Spaulding

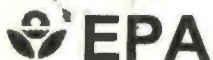
TELEPHONE: (847) 330-5380

SIGNATURE:



DATE:

9-18-00



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☒ Amendment  
☐ Other

OPP Identifier Number

277833

## Application for Pesticide - Section I

1. Company/Product Number Wellmark International/2724-427	2. EPA Product Manager S. Reilly	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Wellmark International/Zoecon RF-342 Emulsifiable Concentrate	PM # Biopesticides	
5. Name and Address of Applicant / Registrant (Include ZIP Code) Wellmark International 1100 E Woodfield Road Schaumburg IL 60173	6. Expedited Review. In accordance with FIFRA Section 3(C)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No _____ Product Name _____	
<input type="checkbox"/> Check if this is a new address		

## Section - II

<input checked="" type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and section II.)

Zoecon RF-342 Emulsifiable Concentrate (EPA Reg. No. 2724-427) Formulation Amendment to replace emulsifier and Label Amendment to add target pest species. Notification to change primary brand name from Zoecon RF-342 Emulsifiable Concentrate to RF-9811 EC.

## Section - III

1. Material This Product Will be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input checked="" type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted			
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 1-2.5 liters	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Label Accompanying Product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____	

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Steven R. Spaulding	Title Manager, Regulatory Affairs	Telephone No. (Include Area Code) (847) 330.5380
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature Steven R. Spaulding/je	3. Title Manager, Regulatory Affairs	
4. Typed Name Steven R. Spaulding	5. Date 9/19/00	



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☐ Other

OPP Identifier Number

277833

**Application for Pesticide - Section I**

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name)	PM#	
5. Name and Address of Applicant (Include ZIP Code)  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted	If "Yes" Unit Packaging wgt.	No. per container			
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name		Title		Telephone No. (Include Area Code)	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					6. Date Application Received (Stamped)
2. Signature		3. Title			
4. Typed Name		5. Date			

144

## PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for registration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III** (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Indicate the location of the net contents information for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicated the method product label is attached to retail container.

**SECTION IV** (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

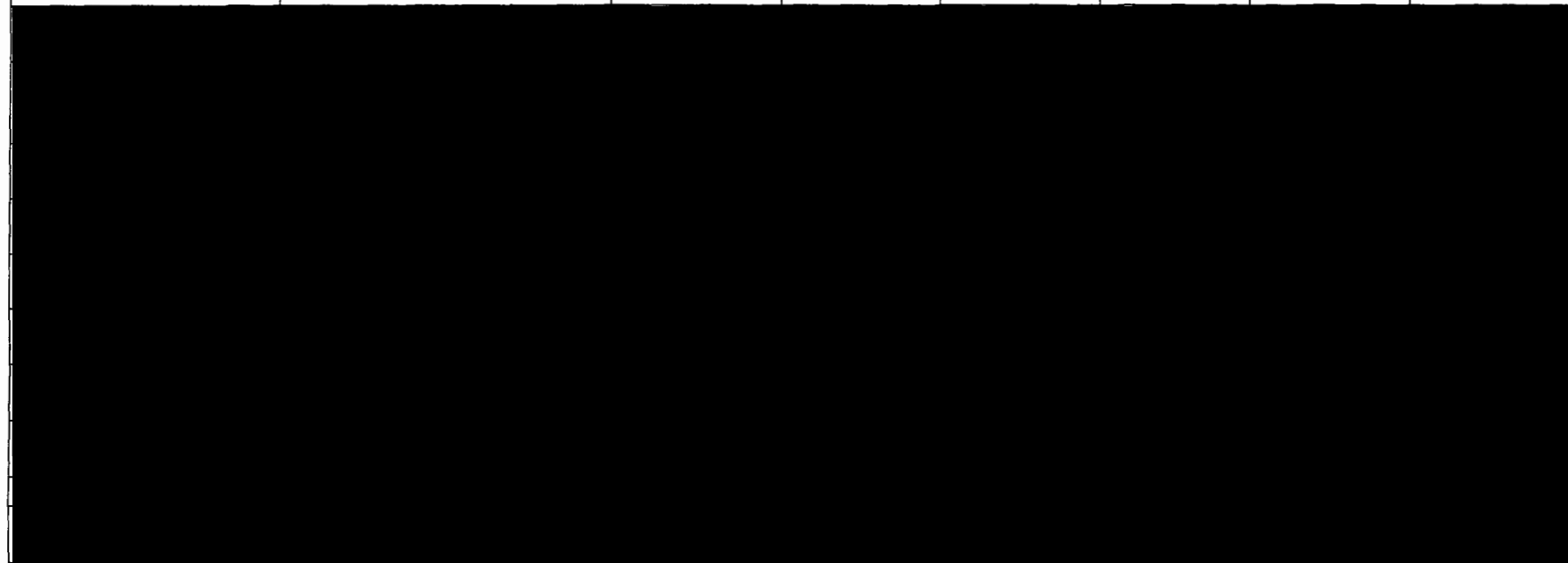
- 1-5. Self-explanatory.
6. EPA Use Only.

# ATTACHMENT I

## Comparative Overview of RF-342 EC / RF-9811 EC Formulation & Label Amendment



Ingredient	Chemical Name	CAS Number	Purpose	DIACON 2724-477 RF-174.001  stored prod. pests	APEX 2724-452 RF174.003  sciarid flies	DIANEX 2724-427 RF-342.002 Current  tobacco pests	DIANEX 2724-427 RF-9811.001 Proposed Amendment  plus midges
(R,S)-Methoprene	(94%)	40596-69-8	IGR	71.30% nom= 67%	71.30% nom=67%		
(S)-Methoprene	(94%)	65733-16-6	IGR			35.74% nom=33.6%	35.74% nom=33.6%



# Label Review Sheet

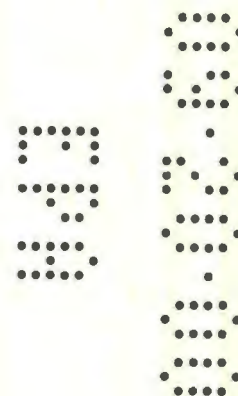
**FILENAME:** g:\regulatory\LABELS\ CAHSPEC\02724427\ pz342ECA 00A  
**COVERSHEET** September 2000  
**UPDATE:**  
**PRODUCT:** ZOECON RF-342 (RF9811) EMULSIFIABLE CONCENTRATE  
**EPA REG. NO.:** 2724-427  
**APPROVED:** Amendment submitted 9/00 **SUPERSEDES:**

**OVERVIEW:** Transfer use patterns (mushrooms/**APEX** – 2724-452 and stored grains/Altosid 5E-FZ-515/**DIACON** – 2724-477) from R/S methoprene formulation to S-methoprene formulation; Add new pests – filter flies and midges (registered as pests under Zoecon RF437 Mosquito Growth Regulator, 2724-446 - 20% S-methoprene)  
 Change primary brand name from Zoecon RF-342 Emulsifiable Concentrate for Tobacco to RF-9811 EC (DIANEX)

Red text represents revisions to RF 342 EC (now RF-9811EC), added text in other colored areas (DFU's) is underlined, any text to be deleted is marked as strikethrough

Page #	Description of Major Changes
1	<p>Header revised to reflect change in primary brand name (see above overview) include pests/sites from <b>APEX</b>/<b>DIACON</b> labels, new pests/sites added (filter flies/midges)</p> <p>Ingredient Statement: Chemical name dropped, added CAS # - PRN 97-5</p> <p>"Inert" changed to "Other" – PRN 97-6</p> <p>Added asterisk following "Other Ingredients" to indicate that formulation contains petroleum distillates</p>
2-3	<p>Precautionary Statements – Updated per 12/96 Label Review Manual, tox data submitted, included WPS language from <b>APEX</b> label</p> <p>First Aid statements added per PRN 2000-3</p> <p>Optional Worker Protection Standard language added to reflect <b>APEX</b> mushroom use pattern, revised based on changed formulation – new chemical resistance category (F to E), revised types of chemical-resistant gloves, added Engineering Controls section, added User Safety Recommendations box</p> <p>Environmental Hazards – added optional text relevant to filter fly/midge aquatic use only</p> <p>Physical/Chemical Hazard statement removed based on new formulation's flashpoint</p>
4	<p>Optional WPS Ag Use box added/revised PPE based on formulation change (for <b>APEX</b>/mushroom use)</p> <p>Added optional "Do not apply... irrigation system" (for <b>APEX</b> label)</p>

5	Directions for Use/DIANEX – First paragraph, added “S” to methoprene revised name to reflect new formulation
6	Added DFU from <b>DIACON</b> label with revisions as follows: Methoprene revised to S-methoprene, “5E” removed from product name First paragraph/last sentence – “fumigated” changed to “treated” – clarity Second Paragraph – added “ <u>1 kg</u> sample...”, clarity, added FGIS reference statement. Stored Grain: Additional application method – top dressing for already stored products General Directions/Rate table: added shorter residue, lower rates
7	Additional <b>DIACON</b> DFU revisions: Dilution chart, added lower rates (2ppm, 1ppm) dilution figures  Directions (same as DIANEX DFU) for fogging, space spray added for <b>DIACON</b>
8-9	Added DFU from <b>APEX</b> label – removed “5E” from name
10-11	Added DFU for filter flies/midges – waste water treatment facilities
12	Added trademark reference Address change Information reference – added “or in case of an emergency” (stewardship) Added web site statement



[Optional text]

**ZOEGON® RF-342 9811 EC**  
**EMULSIFIABLE CONCENTRATE FOR TOBACCO**

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator for the Control of  
[Insect Pests in Tobacco Processing and Storage Facilities]  
[to Prevent the Emergence of Adult Sciarid Flies In Mushroom Culture]  
[Stored Product Insects in Cereal Grains, Grain Sorghum (Milo), Corn (except Sweet Corn and Popcorn), Birdseed, and Peanuts]  
[to Prevent the Emergence of Adult Filter Flies and Midges]

**ACTIVE INGREDIENT:**

(S)-Methoprene [~~Isopropyl (2E,4E,7S)-~~

~~11-methoxy 3,7,11-trimethyl-2,4-dodecadienoate~~] (CAS #65733-16-6).....33.6%

**INERT OTHER INGREDIENTS\*:** .....66.4%

Total: .....100.0%

\*Contains petroleum distillates

This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

**KEEP OUT OF REACH OF CHILDREN**

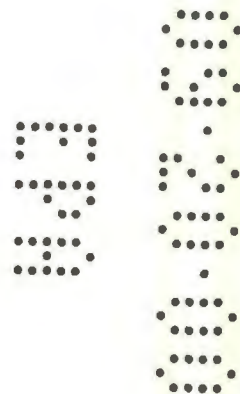
**CAUTION**

See Back Panel for Additional Precautionary Statements

EPA Reg. No. 2724-427

EPA Est. No.

NET CONTENTS:



## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Causes moderate eye irritation. Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If swallowed	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [phone number] for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

(Include WPS for APEX Mushroom Use pattern)

### **Personal Protective Equipment (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E F on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as butyl neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.]

### **Engineering Controls Statements:**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

**User Safety Recommendations:**

Users should:

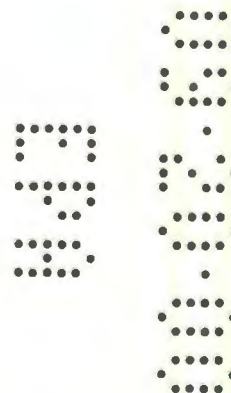
- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

?

**ENVIRONMENTAL HAZARDS:** <sup>some invertebrates</sup> ~~[This product is toxic to aquatic dipteran. Using it in a manner other than that described by the label could result in harm to non-target aquatic invertebrates].~~ Do not contaminate water when disposing of rinsate or equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS:** ~~Do not use or store near heat or open flame.~~

[Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.]



### [AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

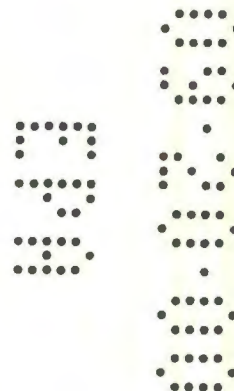
Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as butyl neoprene rubber ( $\geq 14$  mils), nitrile rubber ( $\geq 14$  mils), barrier laminate, or viton ( $\geq 14$  mils)
- Shoes plus socks

Do not apply this product through any type of irrigation system.



(Directions for Use for RF-9811 EC [DIANEX]-Stored Tobacco Products)

**INTRODUCTION:** Zeecon® RF-342-9811 EC is an emulsifiable formulation of the insect growth regulator, (S)-methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. Zeecon RF-342 9811 EC, when used according to label directions, controls the following insects:

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply Zeecon RF-342 9811 EC as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zeecon RF-342 9811 EC at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of Zeecon RF-342 9811 EC to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zeecon RF-342 9811 EC, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

(Directions for Use for DIACON -Stored Product Insects)

**PRODUCT INFORMATION:** (S)-methoprene, the active ingredient in DIACON®, protects stored grains from damaging insects by interfering with the normal process of insect development. Unlike traditional pesticides, DIACON is not an adulticide, but its residual activity prevents the development of larvae into adults. DIACON, when used according to the label directions, prevents regeneration of the following insects: almond moth, Indian meal moth, cigarette beetle, lesser grain borer, sawtooth grain beetle, merchant grain beetle, red flour beetle, and confused flour beetle. Existing insect populations should be treated ~~fumigated~~ before applying DIACON for residual protection.

If stored grain insect populations exceed 2 insects per 1 kg sample during storage, fumigate to avoid grain-damaged kernels from existing insects. Refer to FGIS regulations for stored grain for more information on sampling and insect thresholds.

**Stored Grain:** For protection of stored food, feed, oil and seed grains against stored grain insects - for optimum results, thoroughly clean and treat grain storage areas prior to storage of grain. DIACON may also be applied as a top-dressing to stored products that have already been placed into bins or storage areas. Use the rate of 2.5 - 5 ppm for this type of application. Avoid flooding of top-dress area.

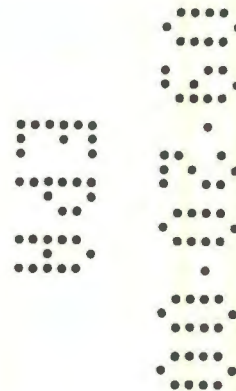
#### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**GENERAL DIRECTIONS FOR TREATMENT OF GRAIN BEING STORED:** Dilute DIACON with water or FDA-approved food grade oils\* or soybean oil and apply to the moving grain stream as a coarse spray to give a deposit of 5 ppm of DIACON on the grain. Use a final water solution volume of 5 gallons of liquid per 1000 bushels of grain and 10 gallons of liquid per 1000 bushels of rice. (Final spray volumes of oil solutions should be applied at the oil manufacturer's rates.) Agitation of water or oil solutions is necessary.

For maximum residual and efficacy, use the rate of 5 ppm. For shorter term residual, lower rates may apply, but do not use rates less than 1 ppm.

DIACON is to be applied in solution in accordance with the general directions to stored products at the following rates per 1000 bushels to provide treatment with 5 ppm concentrations of DIACON. When using lower rates, use the appropriate amount of formulation to achieve the desired application rate:



	5 ppm		2.5 ppm		1 ppm	
	<u>fl oz</u>	<u>ml</u>	<u>fl oz</u>	<u>ml</u>	<u>fl oz</u>	<u>ml</u>
Wheat	7.70	228	4.0	114	1.54	46
Corn	7.10	212	3.5	106	1.42	43
Grain sorghum (Milo)	7.10	212	3.5	106	1.42	43
Barley	6.10	182	3.0	91	1.22	37
Rice	5.70	170	3.0	85	1.10	34
Oats	4.10	121	2.0	61	0.80	25
Peanuts*	3.85	12415	2.0	620	0.80	24

\*For peanuts, use water solution only

### USE PRECAUTIONS:

- Apply DIACON grain protectant only to grain of known treatment history, apply no more than once per crop.
- Check spray equipment calibration regularly to insure proper application rates.
- Add the measured amount of DIACON to a spray tank partially filled with water or mineral oil, mix and complete filling with recommended quantity of carrier.
- Use diluted spray solution within 48 hours of mixing. Agitate before each use.
- Avoid application at extremely dusty sites.

*DIACON may also be used as a fogging concentrate or surface spray for the treatment of warehouses, silos, storage bins or other stored commodity areas. For application of DIACON as a fogging or space spray, use the following directions.*

*Application with Cold Aerosol Generators:* Apply DIACON as a mist or aerosol. Dilute with water or oil as required following the instructions of the spray equipment manufacturer. Apply DIACON at the rate of 1 ml per 1000 square feet of surface area or 1 ml per 10 cu ft. Use spray equipment to achieve uniform treatment.

*Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before entry. Repeat application as required.*

*Application as an Aqueous Spray:* Prepare a diluted spray solution by adding 1 ml of DIACON to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

*Mixing Instructions:* Partially fill the mixing container with water, add DIACON, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

*specified*

(Directions for Use for APEX – Mushrooms)

(S)-methoprene, the active ingredient in APEX® 5E insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of (S)-methoprene does not result in immediate insect kill, it interferes with the normal process of insect development. APEX 5E will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions, fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best overall results. After treatment with APEX 5E, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than 2 weeks after treatment to assess the full benefit of APEX 5E.

**METHOD, RATE, AND TIMING OF APPLICATION:** For best results, APEX 5E should be incorporated in the mushroom growing medium.

Follow either **METHOD A, METHOD B, or METHOD C**  
Application Instructions.

**A. INCORPORATE IN CASING AT TIME OF CASING**

Apply APEX 5E at the rate of 5½ fluid ounces per 1000 sq ft (fl oz/1000 sq ft). Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

**B. INCORPORATE IN COMPOST AT TIME OF SPAWNING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

**In Compost:** Apply APEX 5E at the rate of 5½ fl oz/1000 sq ft in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

**In Casing:** Apply APEX 5E at the rate of 2¼ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

**C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER**

For those crops that have a 16-day or longer spawn run, a split application can be used.

**First Application, on compost:** Apply APEX 5E 12-13 days after spawning. Drench APEX 5E evenly on the surface at the rate of 2¾ fl oz/1000 sq ft in adequate water for even distribution.

**Second Application, in casing:** Apply APEX 5E at the rate of 2¾ fl oz/1000 sq ft. Make application evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

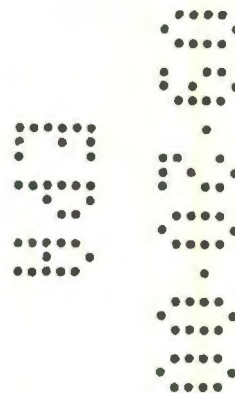
**MIXING AND HANDLING INSTRUCTIONS**

1. Add the measured amount of APEX 5E to a spray tank partially filled with water, mix, and complete filling with ~~recommended~~ *specified* quantity of water.

2. Use diluted spray solution within 48 hours of mixing. Agitate before each use.

### EFFECT ON MUSHROOMS

In most cases, treatment with APEX 5E has a beneficial effect on mushroom yield through control of damaging sciarid fly larvae. Due to the widely differing practices followed in mushroom culture, ~~the user should~~ <sup>if you</sup> conduct test treatments on small plots to determine that reduced crop yields will ~~not~~ <sup>it</sup> occur under ~~his own~~ <sup>your</sup> cultural conditions. <sup>you can</sup>



Directions for Use for midges/filter flies

**DIRECTIONS FOR USE:**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**MIXING AND HANDLING INSTRUCTIONS:**

Partially fill spray container with water; then add the ~~recommended~~ <sup>specified</sup> amount of RF-9811 EC, agitate, and complete filling. Agitate mildly during application. Agitation can be accomplished by use of recirculation pump, mixer, air pump, or other suitable equipment.

**RECOMMENDED APPLICATIONS**

**Waste Water Treatment Facility Pests:** Use RF-9811 EC in trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water treatment facilities where midges, filter flies, and other nuisance aquatic insect pests are a problem.

**What to Expect in Waste Water Treatment Facilities**

**Continuous Flow Sewage (waste water)**

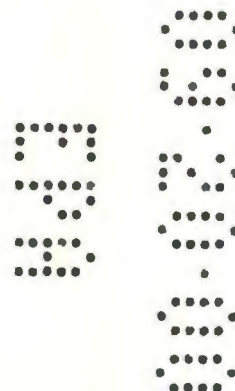
In order to achieve effective results, RF-9811 EC must be applied daily for at least 2 weeks.

If applications are not made on a continuous basis, erratic results may occur. Following initial applications of RF-9811 EC, a gradual reduction in the number of adult pests will be seen over approximately a 1 week period. Reduction in adult populations will be very noticeable within a 2 week period following continuous application. Due to varying conditions or heavy infestations, a longer period may be necessary for control. Since the mode of action of RF-9811 EC is to prevent adult emergence, existing adults and pupa present at the time of initial application will complete their life cycle.

As adult suppression peaks, use a maintenance rate of RF-9811 EC for continuous protection from population rebound. However, if application of RF-9811 EC is halted following population suppression, rebound of the population can be expected within 2 to 3 weeks after stopping application. For continuous suppression throughout the pest season, continue applications of RF-9811 EC

**Sludge or Solid Waste Applications**

For solid waste applications, use the initial high rate. The dilution should be applied until the drying beds have been filled. Following filling of the drying beds, halt the dilution application. Make applications of the dilution at the influent side as the sludge or solids enter into the drying beds. Application of RF-9811 EC to solids will prevent the emergence of adult insect pests thereby keeping infestations under control.



## METHODS OF APPLICATION

**Waste Water Treatment Facilities:** Dilute RF-9811 EC with water prior to use. Apply RF-9811 EC by using a metering pump, drip bucket, or other suitable equipment. Metering pumps are the most efficient and accurate method of application. The application method will influence appropriate product dilution. Depending on the dosage rate, prepare desired volume of dilution to apply over a 24 hour period (day tank), or in cases of sludge beds, applied until the beds have been filled. When using delivery devices, it is important to calibrate the device to deliver the required amount of RF-9811 EC over a 24 hour period. Mix sufficient material in advance to provide for applications longer than 24 hours. Metering pumps that are capable of delivering material for more than 24 hours are highly recommended. *the best method*

## APPLICATION RATE

### Waste Water Treatment Pests:

**Initial Application** - 2.5 to 3.0 ounces of RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side over a 24 hour period.

**Maintenance Rate** - 1.5 to 2.0 ounces RF-9811 EC per 1 million gallons of sewage waste water in sufficient water to apply uniformly at the influent side over a 24 hour period.

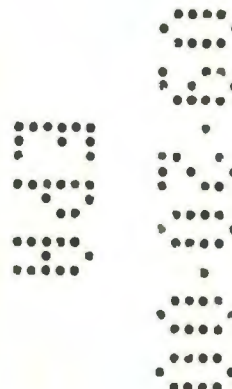
To achieve effective results, use initial application rates on a daily basis for 2 weeks, without interruption. Use sufficient water/RF-9811 EC to achieve uniform application to sewage (waste water) over a 24 hour period. Make application of the dilution at the influent side of the particular area to be treated.]

Maintain initial rate of application for 2 weeks and then for continued effectiveness, follow the directions for the maintenance rate.

## APPLICATION SITES

**Waste Water Treatment Facilities:** Make applications of RF-9811 EC to sewage as it flows into trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water facilities where pests are a problem.

Make RF-9811 EC applications as the sewage enters (influent areas) the targeted processing area. Failure to add the material at the influent side may result in erratic results.



**STORAGE and DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. **Storage** - Store in a cool dry place. **Pesticide Disposal** - Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal** - **[Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

#### **WARRANTY AND CONDITIONS OF SALE**

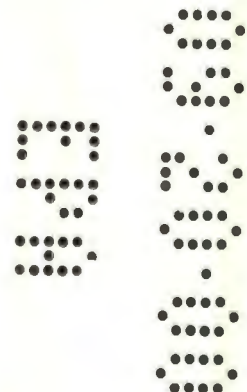
Seller makes no warranty, express or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

**APEX®, DIACON®, and DIANEX®, are registered trademarks of Wellmark International.**

Wellmark International  
**Bensenville-Schaumburg IL 6017306**

Made in USA

For information or in case of an emergency, call 1-800-XXX-XXXX.  
Visit our Web site: [web site address]



**FAX**

**Wellmark International**  
Regulatory Affairs  
1100 East Woodfield Road  
Suite 500  
Schaumburg, IL 60173



<b>To:</b> Jim Downing EPA / BPPD	<b>cc:</b>
<b>Tel:</b>	<b>File:</b> 2724-427
<b>FAX:</b> (703) 308-9071 27026	<b>Date:</b> September 27, 2001
<b>From:</b> Steve Spaulding	
<b>Tel:</b> (847)330-5380	
<b>FAX:</b> (847)330-5315	
<b>Pages:</b> 8 (including cover page)	
If you do not receive all pages of this fax, please call (847)330-5380	

**SUBJECT: RF-342 Emulsifiable Concentrate (EPA Reg. No. 2724-427)**  
**Environmental Hazard Statement Revision**

Dear Jim:

Per our discussion yesterday concerning revisions to the Environmental Hazard Statement on the amended label for 2724-427, I have attached the following background documentation:

1. Agency letter received on August 5, 1996 indicating that all methoprene products are supported for reregistration. On page 2, the letter states that aquatic invertebrate labeling restrictions are required on all methoprene products applied to water until the Estuarine Invertebrate Life Cycle Study is completed. I have placed an asterisk beside all methoprene products applied to water on the master list that will be affected by this statement.
2. Submission of S-Methoprene Reports in Support of Resolution of Aquatic Hazard Label Statements dated May 23, 1996 including the Chronic Mysid Shrimp Study (MRID44022101) satisfying requirements for the Estuarine Invertebrate Life Cycle Study.

Nancy will be submitting by e-mail the revised label for 2724-427 removing the aquatic invertebrate statements and correcting other language per our discussion yesterday. Please contact me if you have any questions.

Best Regards,

Steven R. Spaulding  
Manager, Regulatory Affairs



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

(1)

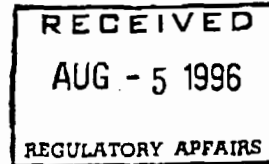
ON

2724-427

OPPH

Reregistration

Mr. Steven R. Spaulding  
Sandoz Agro, Inc.  
1300 East Touhy Avenue  
Des Plaines, Illinois 60018-3300



OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Dear Mr. Spaulding:

Subject: Methoprene Product Supported for Reregistration  
(See attached list of products covered by this letter)

Thank you for your letter and transmittal dated April 22, 1996, submitted in response to the Agency's [Willie H. Nelson's request of March 20, 1996] requesting verification of all **methoprene products supported by registration**. As a follow-up to this request, the items listed below are items which must be completed before reregistration of these products can be completed.

The Biopesticides and Pollution Prevention Division (BPPD) has reviewed the files for methoprene products in an attempt to complete the reregistration process for these products, and to assist in this attempt the following information is required:

- a. Application for reregistration (use EPA Form 8570-1). Complete and sign this form. In Section II of this form, check the box "Other" and insert the phrase "Application for Reregistration" in the Explanation box.
- b. Submit five (5) copies of revised draft label and labeling. Include on the label all changes specified by the RED for methoprene products, e.g.: LABELING REQUIREMENTS FOR END-USE PRODUCTS and LABELING REQUIREMENTS FOR MANUFACTURING USE PRODUCTS. (see attached methoprene information sheet).
- c. All applicable methoprene products must comply with requirements for Worker Protection Standard" according to PR Notice 95-3 (see attached).

(2)

-2-

d. Submit two (2) copies of the current Confidential Statement of Formula (CSF) (EPA Form 8570-4, revised February 85). Two completed and signed CSF forms must be submitted for the basic formulation and for each alternate formulation for each affected product. If CSFs are not provided for the alternate formulas, they will not be registered and will no longer be acceptable. Instructions for completing the CSF form is found in the Appendix of the Pesticide Reregistration Handbook sent out with the RED.

Until the Estuarine Invertebrate Life Cycle Study review is completed and found acceptable, and it is determined that methoprene poses no problem when used in aquatic applications, labeling restrictions will have to remain on the labeling:

"This product is toxic to aquatic invertebrates. Using it in a manner other than that described by the label could result in harm to aquatic invertebrates. Do not contaminate water when disposing of rinsate or equipment washwaters"

Should you have any questions concerning this letter, please free to contact Mr. Willie H. Nelson at (703) 308-8682.

Sincerely,

*Janet L. Andersen*

Janet L. Andersen, Acting Director  
Biopesticides and Pollution Prevention  
Division (7501W)

(3)

## PRODUCT MASTER LIST - METHOPRENE

1. Zoecon RF-275 Pressurized Spray  
EPA Reg. No. 2724-338
2. Zoecon RF-291 Emulsifiable Conc.  
EPA REG. No. 2724-352
3. Zoecon RF - 293 Methoprene Bolus for Beef & Dairy Cattle  
EPA Reg. No. 2724-356
4. Zoecon RF - 297 Aerosol  
EPA Reg. No. 2724-360
5. ALTOSID CP-10 (cattle premix 10%)  
EPA Reg. No. 2724-367
6. Zoecon Granular IGR Cattle Supplement  
EPA Reg. No. 2724-372
7. Zoecon Block IGR Cattle Supplement  
EPA Reg. No. 2724-373
- \* 8. Altosid Briquets  
EPA Reg. No. 2724-375
9. Kabat Tobacco Protector Conc.  
EPA Reg. No. 2724-377
10. Kabat Tobacco Protector Conc.  
EPA Reg. No. 2724-384
- \* 11. Altosid Liquid Larvicide  
EPA Reg. No. 2724-392
- \* 12. Altosid Liquid Larvicide Conc.  
EPA Reg. No. 2724-393
13. Zoecon RF-299 RTU Carpet Pump Spray  
EPA Reg. No. 2724-401
14. Zoecon RF-322 Ovicidal Pump Spray  
EPA Reg. No. 2724-404
15. Zoecon RF-329 Ant Growth Regular  
EPA Reg. No. 2724-420
- \* 16. Zoecon RF-292 Briquet  
EPA Reg. No. 2724-421

(4)

-2-

17. Zoecon RF-372 Collar  
EPA Reg. No. 2724-426

\* 18. Zoecon RF-342 Emulsifiable Conc.  
EPA Reg. No. 2724-427

19. Methoprene Technical  
EPA Reg. No. 2724-441

20. S-Mehtoprene Technical  
EPA Reg. No. 2724-442

\* 21. Zoecon RF-379 Mosquito Growth  
Regulator SR-20  
EPA Reg. No. 2724-446

\* 22. Zoecon RF-330 Altosid Pellets  
EPA Reg. No. 2724-448

\* 23. Altosid Granules  
EPA Reg. No. 2724-~~ULR~~ 451

24. Zoecon Apex 5E  
EPA Reg. No. 2724-452

25. Zoecon 9026 Fogger  
EPA Reg. No. 2724-454

26. Zoecon 9202 Aerosol  
EPA Reg. No. 2724-455

27. Zoecon 9007 Concentrate  
EPA Reg. No. 2724-459

28. Zoecon 9207 Collar  
EPA Reg. No. 2724-460

29. Zoecon 9307 Pump Spray  
EPA Reg. No. 2724-462

30. Sandoz 9309 Fogger  
EPA Reg. No. 2724-464

31. Sandoz 9311 Aerosol  
EPA Reg. No. 2724-465

32. Sandoz 9412 Mousse Lite  
EPA Reg. No. 2724-467

**SANDOZ AGRO, INC.**  
1300 EAST TOUHY AVENUE, DES PLAINES, ILLINOIS 60018-3300



RECD EPA/GPP/DPD2

'96 MAY 28 A10:17

(5)

**CORPORATE HEADQUARTERS**

440221-00

TEL 847.699.1616

Environmental Protection Agency  
Office of Pesticide Programs (H7505C)  
Document Processing Desk  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

May 23, 1996

Attn: Mr. Willie Nelson

**Subject:** Submission of S-Methoprene Reports in Support of Resolution of  
Aquatic Hazard Label Statements.

**Products:** Altosid Liquid Larvicide (A.L.L.) - EPA Reg. No. 2724-392  
A.L.L. Concentrate - EPA Reg. No. 2724-446  
Altosid Briquets - EPA Reg. No. 2724-375  
Altosid XR Briquets - EPA Reg. No. 2724-421  
Altosid Pellets - EPA Reg. No. 2724-448  
Altosid Granules - EPA Reg. No. 2724-~~ULR~~ 451

Please find enclosed 3 copies of the following reports in support of resolution of aquatic hazard label statements for the above referenced mosquito control products containing S-Methoprene:

1. (S)-Methoprene Technical - Chronic Toxicity to Mysids (*Mysidopsis bahia*) Under Flow-through Conditions. SLI Report #96-2-6378. Springborn Laboratories, Inc. April 2, 1996.
2. An Assessment of Non-Target Effects of the Mosquito Larvicides, Bti and Methoprene, in Metropolitan Area Wetlands. A Report from the Scientific Peer Review Panel to the Metropolitan Mosquito Control District (MMCD). January, 1996.
3. Methoprene (Altosid) Label Issues - Position Summary. Sandoz Agro, Inc. May, 1996.

(6)

The Mysid Life-Cycle Toxicity Test was successfully completed after two previous studies were determined by EPA to be invalid due to poor population survival rates and poor reproduction success in the control groups. The Maximum-Acceptable-Toxicant Concentration (MATC) was calculated to be  $>14$  and  $<25\mu\text{g A.I./L}$ , which is similar to the values reported in the previous 2 invalid studies. This study has been repeated in response to your letter of July 20, 1994 in order to fulfill Guideline 72-4 requirements for an estuarine invertebrate chronic toxicity study.

The MMCD study evaluated potential effects of methoprene on non-target organisms after repeated use and failed to find any significant effects on birds, amphibians, zooplankton and most non-target insects.

The Methoprene Label Issues Position Summary provides rationale for our request to: (1) remove the warning statement "Do not apply to fish-bearing waters" from all solid Altosid mosquito control products and (2) add the statement "This product is toxic to aquatic dipteran (mosquitoes) and chironomid (midge) larvae" to all Altosid mosquito control products.

We would like to request a followup meeting with the BPPD following review of the submitted information in order to reach final resolution of this issue. Please contact me at (847)390-3007 if you have any questions.

Yours Sincerely,  
SANDOZ AGRO, Inc.



Steven R. Spaulding  
Sr. Regulatory Specialist

(7)

TRANSMITTAL DOCUMENTSUBMITTED BY

Sandoz Agro Inc.  
1300 E. Touhy Ave.  
Des Plaines, Illinois 60018

REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED

Submission of reports in support of resolution of label issues for Altosid mosquito control products.

TRANSMITTAL DATE

May 23, 1996

LIST OF SUBMITTED STUDIES

Volume 1 (S)-Methoprene Technical - Chronic Toxicity to Mysids (*Mysidopsis bahia*) Under Flow-through Conditions. SLI Report #96-2-6378. Springborn Laboratories, Inc. April 1996.

MRID No. 44022101

Volume 2 An Assessment of Non-Target Effects of the Mosquito Larvicides, Bti and Methoprene, in Metropolitan Area Wetlands. A Report from the Scientific Peer Review Panel to the Metropolitan Mosquito Control District. January, 1996.


MRID No. 44022102

Volume 3 Methoprene (Altosid) Label Issues - Position Summary. Sandoz Agro, Inc. May, 1996.

MRID No. 44022103

COMPANY OFFICIAL:

Steven R. Spaulding  
Senior Registration Specialist

COMPANY NAME:

SANDOZ AGRO, INC.

COMPANY CONTACT:

Steven R. Spaulding (847) 390-3007



# DIANEX<sup>®</sup>

## Emulsifiable Concentrate For Tobacco

For protection of stored tobacco  
from damage by Cigarette Beetle  
(*Lasioderma serricorne*) and Tobacco  
Moth (*Ephestia elutella*)

ACTIVE INGREDIENT: (S)-Methoprene [Isopropyl  
(2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-  
dodecadienoate] ..... 33.6%  
OTHER INGREDIENTS: ..... 66.4%  
TOTAL: ..... 100.0%

This product contains 2.5 lb/gallon (300 grams/liter)  
(S)-methoprene active ingredient



KEEP OUT OF REACH OF CHILDREN

**CAUTION**

SEE BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

33.8 FL OZ (1l)

37613B

Complies With EPA  
Accepted Labeling Dated 9-22-1997  
Reviewed By J. Downing

**INTRODUCTION:** DIANEX® Emulsifiable Concentrate (DIANEX) is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. DIANEX, when used according to label directions, controls the following insects: Cigarette beetle (*Lasioderma serricorne*) and Tobacco moth (*Ephestia elutella*).

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS—CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes, or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply DIANEX as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply DIANEX at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment. Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of DIANEX to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add DIANEX, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

**STORAGE AND DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. **Storage-** Store in a cool, dry place.

**Pesticide Disposal-** Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal-** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**WARRANTY AND CONDITIONS OF SALE:** Seller makes no warranty, express or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information call 1-800-248-7763

Wellmark

DIANEX® Emulsifiable Concentrate for Tobacco is a registered trademark of Wellmark International

Bensenville, Illinois 60106

EPA Reg. No. 2724-427

EPA Est. No. 2724-TX-1

Made in USA

© 1998 Wellmark International  
376158

Wellmark

October 8, 2001

Mr. James Downing  
Office of Pesticide Programs 7504C  
U.S. Environmental Protection Agency  
Room 910 Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, Virginia 22202

SUBJECT: FINAL PRINTED LABELS FOR EPA STAMPED APPROVED  
(9/22/97-REREGISTRATION ) FOR  
ZOECON® RF-342 (RF9811) EMULSIFIABLE CONCENTRATE  
EPA REG. NO. 2724-427

Dear Jim:

Per our phone conversation on October 5, I've enclosed 3 copies of final printed labeling related to the methoprene reregistration label that was stamped approved on 9/22/97. Hopefully, this will allow you to finalize this project and provide a stamped label for the amended formulation. If you need anything further, give me (847) 330-5376 or Steve (847) 330-5380 a call.

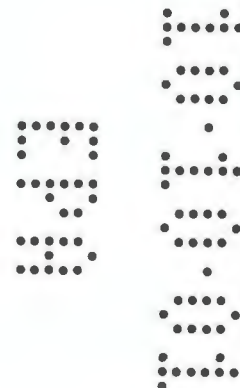
Yours sincerely,  
WELLMARK INTERNATIONAL

*Nancy Huebl*

Nancy Huebl  
Regulatory Specialist

Enclosure

cc: S. Spaulding





United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number Wellmark International/2724-427	2. EPA Product Manager Jim Downing	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Wellmark International/Zoecon RF-342 Emulsifiable Concentrate	PM # Biopesticides	
5. Name and Address of Applicant / Registrant (Include ZIP Code) Wellmark International 1100 E Woodfield Road Schaumburg IL 60173  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(C)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____ Product Name _____	

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated 9.22.97
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and section II.)

## Section - III

1. Material This Product Will be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted If "Yes" Unit Packaging wgt. No. per container If "Yes" Unit Packaging wgt. No. per container					
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1 liter		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Label Accompanying Product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

## Section - IV

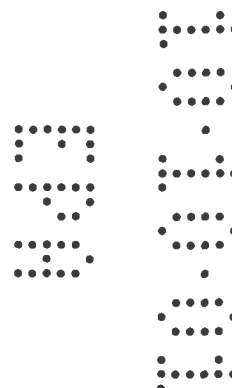
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Nancy Huebl	Title Regulatory Specialist	Telephone No. (Include Area Code) 847 330 5376
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)         
2. Signature <i>Nancy Huebl</i>	3. Title Regulatory Specialist	
4. Typed Name Nancy Huebl	5. Date October 8, 2001	

Label Review Sheet

<b>FILENAME:</b>	g:\regulatory\LABELS\CAHS PEC\02724427\fpI for downng for rereg label 1001	<b>COVERSHEET UPDATE:</b>	October 2001
<b>PRODUCT:</b>	ZOECON RF-342 EMULSIFIABLE CONCENTRATE FOR TOBACCO	<b>EPA REG. NO.:</b>	2724-427
<b>APPROVED</b>	9/22/97	<b>SUPERSEDES:</b>	12/19/90

**OVERVIEW: FPL LABEL (SUBMITTED FOR METHOPRENE REREGISTRATION)  
LABEL/NOMINAL/NAME CHANGE SANDOZ TO WELLMARK**

Page #	Description of Major Changes



[Optional text]

ZOECON RF-342  
EMULSIFIABLE CONCENTRATE FOR TOBACCO  
Alternate Brand Name: DIANEX® Emulsifiable Concentrate for Tobacco

[For protection of stored tobacco from damage by Cigarette Beetle (*Lasioderma serricorne*) and Tobacco Moth (*Ephestia elutella*)]  
An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and Storage Facilities

**ACTIVE INGREDIENT:**

( <u>S</u> )-Methoprene [Isopropyl (2 <u>E</u> ,4 <u>E</u> ,7 <u>S</u> )-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate]: .....	33.6%
<b>INERT-OTHER INGREDIENTS:</b> .....	66.4%
Total: .....	100.0%

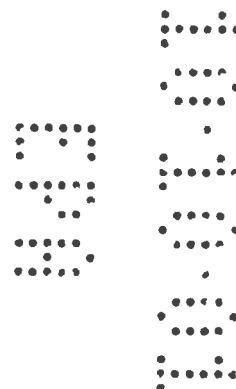
This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

KEEP OUT OF REACH OF CHILDREN

**CAUTION**

See Back Panel for Additional Precautionary Statements.

NET CONTENTS:



**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

#### **PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in area where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

**STORAGE and DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal.

**Storage** - Store in a cool, dry place. **Pesticide Disposal** - Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal - [Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

#### **WARRANTY AND CONDITIONS OF SALE**

Seller makes no warranty, express or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

Wellmark International  
Bensenville IL 60106  
Made in USA

EPA Reg. No. 2724-427  
For information, call 1-800-XXX-XXXX.

EPA Est. No.:

**DIANEX® Emulsifiable Concentrate for Tobacco is a registered trademark of Wellmark International.**

12/6/89  
 255,780 / 300  
 17  
 DEC 11 1989  
 DEC 11 1989

Kelly Parker  
 Isocon Corporation  
 A Sandoz Company  
 12005 Ford Road, Suite 800, LB 44  
 Dallas, TX 75234-7296

Subject: Isocon RF-342 emulsifiable Concentrate  
 EPA Registration No. 2724-427  
 Changes in the DIRECTIONS FOR USE portion of the  
 label as per our discussion on November 21, 1989.

Dear Kelly:

The labeling changes that we discussed on November 21, 1989 made in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable. The following DIRECTIONS FOR USE label statements will be removed because they would not be achievable in tobacco processing plants:

"Cover or remove any tobacco or tobacco processing equipment during application. After spraying wash all equipment, benches, shelving, etc., where tobacco will be handled with an effective cleaning compound followed by a potable water rinse."

Submit five (5) copies of the final printed labeling.

Sincerely,

*Phil Hutton*  
 Phil Hutton  
 Product Manager 17  
 Insecticide/Rodenticide Branch  
 Registration Division (H7505C)

CONCURRENCES							
SYMBOL							
SIGNATURE	<i>Bagley</i>						
DATE	<i>11-29-89</i>						

EPA Form 1320-1 (12-79)

OFFICIAL FILE COPY



-2-

- c. The following statement must be added to the label after the HAZARDS TO HUMANS AND DOMESTIC ANIMALS portion of the label:

**ENVIRONMENTAL HAZARDS**

Do not contaminate water when disposing of equipment washwaters.

- d. You must add the following statement to the use directions:

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

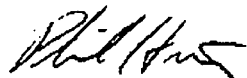
This statement must be included until your submission of test data indicates that the product is safe to use near or on electrical equipment.

3. Include data on the corrosive characteristics of the product when you submit the rest of the storage stability data.

4. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

  
Phil Hutton  
Product Manager (17)  
Insecticide-Rodenticide Branch  
Registration Division (W7505C)

Enclosures

# **ZOECON RF-342** **EMULSIFIABLE CONCENTRATE** **FOR TOBACCO**

An Insect Growth Regulator for the Control of  
 Insect Pests in Tobacco Processing and  
 Storage Facilities

<b>ACTIVE INGREDIENTS:</b>	
(S)-Methoprene [isopropyl(2S,4S,7S)- 11-methoxy-3,7,11-trimethyl-2,4- dodecadienoate]	32.8%
<b>INERT INGREDIENTS:</b>	67.2%
<b>TOTAL</b>	<b>100.0%</b>

This product contains 2.5 lb/gallon (300 grams/liter)  
 (S)-methoprene active ingredient.

**KEEP OUT OF REACH OF CHILDREN** ACCEPTED  
 COMMENTS  
 In EPA Letter Dated:

**CAUTION**

NOV 17 1989

Under the Federal Insecticide,  
 Fungicide, and Rodenticide Act as  
 amended, for the pesticide  
 registered under EPA Reg. No.  
 570-55-1

See Back Panel for Additional Precautionary Statements.

**NET CONTENTS:**

**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aerosol emulsion spray. (S)-Methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects:

Almond moth (*Ephestia chenchilla*)  
 Cigarette beetle (*Lasioderma serricorne*)  
 Eastern grain beetle (*Leptothorax acuminatus*)  
 Red flour beetle (*Tribolium castaneum*)  
 Tobacco moth (*Ephestia kuehniella*)  
 Indian meal moth (*Plodia interpunctella*)  
 Lesser grain beetle (*Leptothorax acuminatus*)  
 Merchant grain beetle (*Calanderinus scriptus*)  
 Confused flour beetle (*Tribolium confusum*)  
 Warehouse beetle (*Tenebrio molitor*)

## **PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**PHYSICAL & CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**Application with Cold Aerosol Generators:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 oz per 1,000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Clean room or warehouse and shut off all ventilating systems. Apply the product as a fine mist to the air above the trays, shelves, and to areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aerosol Spray:** Prepare a diluted spray solution by adding 1 oz of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low pressure sprayer typically used for fumigant applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Refill before each use.

## **STORAGE & DISPOSAL:**

**Storage:** Store in a cool, dry place. Pesticides should be stored in original container, sealed, and away from food, feed, or food storage or disposal facilities. From use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** (Metal Containers): Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. (Glass Containers): Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. (Plastic Containers): Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. (Other Containers): Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

## **WARRANTY AND CONDITIONS OF SALE**

Zoecon Corporation warrants that this product conforms to the chemical description on the label and is useful for the control of insect pests as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied.

Zoecon Corporation

A Munding Company  
 12700 Dunbar Drive, Dallas, Texas 75244

EPA Reg. No. 570-55-1  
 U.S. Pats. 3,904,842 & 3,912,815  
 87064-5752

EPA Est. 54017-CA-1  
 MADE IN USA  
 © 1988 Zoecon

Wellmark International

451137-00

## Wellmark

May 3, 2000

Ms. Kate Bouvé  
FIFRA 6(a)(2)  
Office of Pesticide Programs (H7504C)  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Hwy.  
Arlington, VA 22202

**Subject: FIFRA 6(a)(2) REPORTING (STUDY SUBMISSION)  
FOR ZOËCON RF-342 EMULSIFIABLE CONCENTRATE  
EPA REG. NO. 2724-427**

Dear Ms. Bouvé:

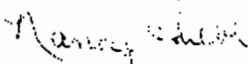
Wellmark International is submitting a primary eye irritation study in rabbits under provision of FIFRA Section 6(a)(2) for EPA Reg. No. 2724-427. Three copies of the study are enclosed along with a Transmittal Document.

In the primary eye irritation study in rabbits #SLS 3122.8, one of six rabbits in the non-wash, treated group exhibited corneal involvement up to day 21 post-dosing. The remaining five of six rabbits in the non-wash, treated group had eye irritation that cleared by day 10. In the washed, treated group, all animals had minimal eye irritation at 72 hours and no irritation at day 4. Although the study results indicate that this formulation would be a severe eye irritant (tox cat. I), it is important to note that Wellmark has yet to receive an adverse incident report for this current formulation. Additionally, this product is marketed to a specialized niche group that has many years of experience with this product's application.

This study was conducted in anticipation of methoprene end-use product reregistration data requirements. However, ultimately the study was not required for reregistration and inadvertently it was not submitted. This fact was recently discovered when reviewing the product data base in relation to a formulation amendment required for reasons unrelated to eye irritation. Wellmark will be submitting this formulation amendment with an ocular irritation study in the third quarter 2000.

Please contact me at (630) 227-6017 should you have any questions regarding this submission.

Sincerely,

  
Nancy Huebl  
Regulatory Label Specialist

Enclosures: SLS Study No. 3122.8 (Eye)

cc: S. Spaulding/C. Elmi/D. Crawford

**TRANSMITTAL DOCUMENT**

**SUBMITTED BY**

Wellmark International  
1000 Tower Lane  
Bensenville, Illinois 60160

**REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED**

Submission of Primary Eye Irritation study for Dianex RF-342 EC in Compliance with FIFRA  
6(a)(2) Reporting Requirements

**TRANSMITTAL DATE**

May 3, 2000

**LIST OF SUBMITTED STUDIES**

Volume 1 of 1

Primary Eye Irritation Study of Dianex RF-342 in Rabbits,  
Springborn Life Sciences, Inc. study # 3122.8, 2/13/89.  
MRID # 45113701

**COMPANY OFFICIAL:**

Nancy Huebl  
Registration Specialist

*Nancy Huebl*

**COMPANY NAME:**

Wellmark International

**COMPANY CONTACT:**

Nancy Huebl (830) 227-6017

**Springborn Life Sciences, Inc.**

**Toxicology & Human Safety Division**

553 North Broadway • Spencerville, Ohio 45887 • (419) 647-4196 • Telex 4436041 • Facsimile 419-647-6560



**PRIMARY EYE IRRITATION STUDY OF  
DIANEX RF-342 IN RABBITS  
(EPA)**

**FINAL REPORT**

**451137-01**

**Data Requirement**

**Guideline 81-4**

**Author**

**Joseph C. Siglin, B.A.**

**Study Completed on**

**February 13, 1989**

**Performing Laboratory**

**Springborn Life Sciences, Inc. (SLS)  
Toxicology and Human Safety Division  
553 North Broadway  
Spencerville, Ohio 45887**

**SLS Study No.**

**3122.8**

**Submitted To**

**Zoecon Corporation  
12005 Ford Road, Suite 800  
Dallas, TX 75234**

**Page 1 of 21**

**Volume 1 of 1**

**Copy 3 of 3**

**Springborn**  
LABORATORIES

LETTERS AND REPORTS from Springborn Life Sciences, Inc. and Springborn Laboratories, Inc. are prepared for the exclusive use of the client to whom they are addressed. No quotations from reports of use of the Springborn Life Sciences, Inc. and Springborn Laboratories, Inc. name, or certified except as expressly authorized in writing. Letters and reports apply only to the specific test, products, or processes tested, submitted or reviewed and are not necessarily indicative of the quality of subsequent test results or similar materials, products or processes. The use of Springborn Life Sciences, Inc. and Springborn Laboratories, Inc. with respect to services rendered shall be limited to the amount of the actual charges paid for such services and not include any other charges.



MAR 12 1999

Ms. Nancy Huebl  
Regulatory Label Specialist  
Wellmark International  
1000 Tower Lane, Suite 245  
Bensenville, Illinois 60106

SUBJECT: Notification of Alternate Brand Names:  
Altosid Liquid Larvicide - EPA Reg. No. 2724-392  
Zoecon RF-342 Emulsifiable Concentrate - EPA Reg. No. 2724-427  
Sandoz 9404 Spray - EPA Reg. No. 2724-483

Your submission of February 16, 1998

Dear Ms. Huebl:

The alternate brand names listed below, submitted in connection with the above-referenced product registrations, are acceptable and our records have been adjusted to reflect these additional names. This acceptance is given with the understanding that the label for the alternate brand name will be like the registered label in every particular way except for product name, associated artwork, and you may delete, but not add sites and pests.

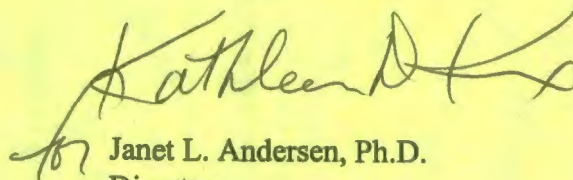
Alternate Brand Names

EPA Registration Nos.

Zoecon® Altoside Liquid Larvicide  
Mosquito Growth Regulator  
Dianex® Emulsifiable Concentrate for Tobacco  
Precor® 2000 Premise Spray II

2724-392  
2724-427 ✓  
2724-483

Sincerely yours,



Janet L. Andersen, Ph.D.  
Director

Biopesticides and Pollution

Prevention Division (7511C)

DGregory: 703-308-8681: 03/08/99: 151 Methoprene (Isopropyl (2E, 4E, 7S)-11-Methoxy-3,7,11

CONCURRENCES

SYMBOL	751C						
SURNAME	DGregory						
DATE	3/8/99						

# BPPD PRAT ACTION CODING FORM

PM 90: Janet Andersen

REVIEWER: ~~Willie~~

(ASSIGNED BY: JOHN)

EPA REG./FILE SYMBOL 2724483

ACTION CODE \_\_\_\_\_

SUBMISSION BARCODE \_\_\_\_\_

Date on Application \_\_\_\_\_

EPA Received Date \_\_\_\_\_

PM Received Date \_\_\_\_\_

Assigned in PRAT YES \_\_\_\_\_ NO \_\_\_\_\_

Completed by: S. Diana Hudson Date \_\_\_\_\_

.....

## FINAL ACTION

Response Code \_\_\_\_\_

Response Date: / /

MOS: \_\_\_\_\_ (1) Cite-All

\_\_\_\_\_ (4) Not Applicable

\_\_\_\_\_ (8) Selective

CRP: Yes \_\_\_\_\_ No \_\_\_\_\_

Restricted Use: Yes \_\_\_\_\_ No \_\_\_\_\_

Manufacturing Use: Yes \_\_\_\_\_ No \_\_\_\_\_

Exclusive Use: Yes \_\_\_\_\_ No \_\_\_\_\_

Willie - you  
have jacket, please  
file.

Thanks,  
Diana  
Alternate  
Brand Name  
Janet's signature

Wellmark

February 16, 1998

Document Processing Desk (NOTIF)  
Office of Pesticide Programs H7504C  
U.S. Environmental Protection Agency  
Room 266A Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, Virginia 22202

ATTENTION: R. Sjoblad

SUBJECT: NOTIFICATION OF ALTERNATE BRAND NAMES  
ALTOSID LIQUID LARVICIDE/EPA REG. NO. 2724-392  
ZOECON RF-342 EMULSIFIABLE CONCENTRATE/EPA REG. NO. 2724-427  
SANDOZ 9404 SPRAY/EPA REG. NO. 2724-483

Dear Mr. Sjoblad:

Enclosed are completed EPA Forms 8570-1 to serve as notifications of the following alternate brand names:

2724-392	ZOECON® ALTOSID® Liquid Larvicide Mosquito Growth Regulator
2724-427	DIANEX® Emulsifiable Concentrate for Tobacco
2724-483	PRECOR® 2000 Premise Spray II

If you have any questions, please, call me directly at ~~630/227-6017~~. Thank you for your assistance in this matter.

847-330-5376

Yours sincerely,  
WELLMARK INTERNATIONAL

*Nancy Huebl*

Nancy Huebl  
Regulatory Label Specialist

enclosure

cc: S. Spaulding/C. Elmi



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number  
259579

### Application for Pesticide - Section I

1. Company/Product Number Wellmark International/2724-392	2. EPA Product Manager R. Sjoblad	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Wellmark International/ALTOSID Liquid Larvicide	PM# #91 P Biopesticides	
5. Name and Address of Applicant (Include ZIP Code) Wellmark International 1000 Tower Lane Bensenville, IL 60106  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____  Product Name _____	

### Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Notification of alternate brand name: ZOECON ALTOSID Liquid Larvicide Mosquito Growth Regulator

### Section - III

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 5 oz to 5 gal	5. Location of Label Directions <input checked="" type="checkbox"/> On label
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____	

### Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Nancy Huebl	Title Regulatory Label Specialist	Telephone No. (Include Area Code) 630 227 6017	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature <i>Nancy Huebl</i>	3. Title Regulatory Label Specialist		
4. Typed Name Nancy Huebl	5. Date February 16, 1998		



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

259579

**Application for Pesticide - Section I**

1. Company/Product Number Wellmark International/2724-427	2. EPA Product Manager R. Sjoblad	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Wellmark International/ RF-342 Emulsifiable Concentrate	PM# Biopesticides #91	
5. Name and Address of Applicant (Include ZIP Code) Wellmark International 1000 Tower Lane Bensenville, IL 60106  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Notification of alternate brand name: DIANEX Emulsifiable Concentrate for Tobacco

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
* Certification must be submitted				<input checked="" type="checkbox"/> Plastic	
If "Yes" Unit Packaging wgt. No. per container		If "Yes" Package wgt. No. per container		<input checked="" type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1-128 oz		5. Location of Label Directions <input checked="" type="checkbox"/> On label	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Nancy Huebl		Title Regulatory Label Specialist	
		Telephone No. (Include Area Code) 630 227 6017	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title Regulatory Label Specialist	
4. Typed Name Nancy Huebl		5. Date February 16, 1998	



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

259579

## Application for Pesticide - Section I

1. Company/Product Number Wellmark International/2724-483	2. EPA Product Manager R. Sjoblod	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Wellmark International/Sandoz 9404 Sprav	PM# #91 Biopesticides	
5. Name and Address of Applicant (Include ZIP Code) Wellmark International 1000 Tower Lane Bensenville, IL 60106  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____  Product Name _____	

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of alternate brand name: PRECOR 2000 Premise Spray II

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
* Certification must be submitted				<input checked="" type="checkbox"/> Plastic	
If "Yes" Unit Packaging wgt. No. per container			If "Yes" Package wgt. No. per container	<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 12-16 oz		5. Location of Label Directions <input checked="" type="checkbox"/> On label	
6. Manner in Which Label is Affixed to Product		<input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____	

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Nancy Huebl		Title Regulatory Label Specialist	
		Telephone No. (Include Area Code) 630 227 6017	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title Regulatory Label Specialist	
4. Typed Name Nancy Huebl		5. Date February 16, 1998	

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg.  
Number:

2724-427

Date of Issuance:

SEP 22 1997

NOTICE OF PESTICIDE:  
Registration  
☒ Reregistration

(under FIFRA, as amended)

Term of Issuance:

Unconditional  
Reregistration

Name of Pesticide Product:

Zoecon RF-342  
Emulsifiable  
Concentrate

Name and Address of Registrant (include ZIP Code):

Wellmark International  
1000 Tower Lane Suite 245  
Bensenville, IL 60106

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

Based on your response to the Reregistration Eligibility Document(s), EPA has reregistered the product listed above. Enclosed is a copy of your label stamped "Accepted". This action is taken under the authority of section 4(g)(2)(C) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

Wnelson:09/21/97:308-8682:EPA reg.no.2724-427:methoprene

Signature of Approving Official:

CONCURRENCES

Date:

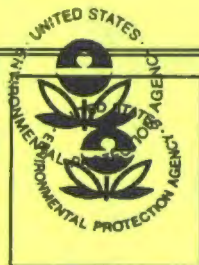
SEP 22 1997

SYMBOL

SURNAME

DATE

EPA Form 8570-6



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg.  
Number:

2724-427

Date of Issuance:

SEP 22 1997

## NOTICE OF PESTICIDE:

Registration

☒ Reregistration

(under FIFRA, as amended)

Term of Issuance:

Unconditional Reregistration  
OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Name of Pesticide Product:

Zoecon RF-342  
Emulsifiable  
Concentrate

Name and Address of Registrant (include ZIP Code):

Wellmark International  
1000 Tower Lane Suite 245  
Bensenville, IL 60106

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

Based on your response to the Reregistration Eligibility Document(s), EPA has reregistered the product listed above. Enclosed is a copy of your label stamped "Accepted". This action is taken under the authority of section 4(g)(2)(C) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

Signature of Approving Official:

Date:

SEP 22 1997

Internet Address (URL) • <http://www.epa.gov>

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 20% Postconsumer)



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

257370

## Application for Pesticide - Section I

1. Company/Product Number Wellmark International/2724-427	2. EPA Product Manager J. Anderson	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Wellmark International/Zoecon RF-342 Emulsifiable Concentrate	PM# 90	
5. Name and Address of Applicant (Include ZIP Code) for Tobacco Wellmark International 1000 Tower Lane Suite 245 Bensenville, IL 60106 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input checked="" type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Application for reregistration

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
* Certification must be submitted	If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container	<input checked="" type="checkbox"/> Plastic
					<input checked="" type="checkbox"/> Glass
					<input type="checkbox"/> Paper
					Other (Specify) _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1 oz - 128 oz		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product		<input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____	

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Steven R. Spaulding		Title Manager, Regulatory Affairs	
		Telephone No. (Include Area Code) 630-227-6074	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title Manager, Regulatory Affairs	
4. Typed Name Steven R. Spaulding		5. Date September 4, 1997	

## PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III** (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Indicate the location of the net contents information for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV** (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
6. EPA Use Only.

[Optional text]

**ZOECON RF-342**  
**EMULSIFIABLE CONCENTRATE FOR TOBACCO**  
[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]  
An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and Storage Facilities

**ACTIVE INGREDIENT:**

(S)-Methoprene [Isopropyl (2E,4E,7S)-  
11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate]:..... 33.6%

**INERT INGREDIENTS:** ..... 66.4%

Total: ..... 100.0%

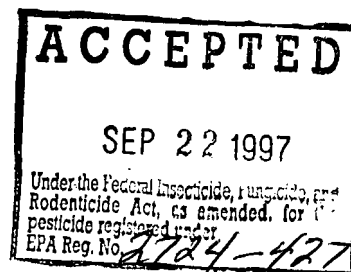
This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See Back Panel for Additional Precautionary Statements.

NET CONTENTS:



**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

#### **PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in area where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

**STORAGE and DISPOSAL:** **Storage** - Store in a cool, dry place. **Pesticide Disposal** - Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal** - **[Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

#### **WARRANTY AND CONDITIONS OF SALE**

Seller makes no warranty, express or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

Wellmark International  
Bensenville IL 60106

EPA Reg. No. 2724-427  
Made in USA

EPA Est. No.:

For information, call 1-800-XXX-XXXX.

[Optional text]

ZOECON RF-342

EMULSIFIABLE CONCENTRATE FOR TOBACCO

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and Storage Facilities

**ACTIVE INGREDIENT:**

(S)-Methoprene [Isopropyl (2E,4E,7S)-

11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate]:..... 33.6%

**INERT INGREDIENTS:** ..... 66.4%

Total: ..... 100.0%

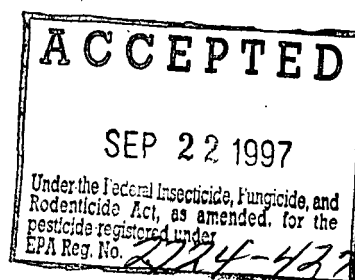
This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

KEEP OUT OF REACH OF CHILDREN

**CAUTION**

See Back Panel for Additional Precautionary Statements.

NET CONTENTS:



**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

#### **PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in area where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

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#### **WARRANTY AND CONDITIONS OF SALE**

Seller makes no warranty, express or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

Wellmark International  
Bensenville IL 60106

EPA Reg. No. 2724-427  
Made in USA

EPA Est. No.:

For information, call 1-800-XXX-XXXX.

[Optional text]

**ZOECON RF-342**  
**EMULSIFIABLE CONCENTRATE FOR TOBACCO**  
[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]  
An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and Storage Facilities

**ACTIVE INGREDIENT:**

(S)-Methoprene [Isopropyl (2E,4E,7S)-	
11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate]:.....	33.6%
<b>INERT INGREDIENTS:</b> .....	<u>66.4%</u>
Total: .....	100.0%

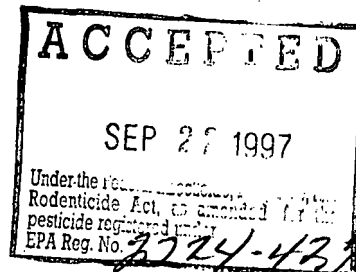
This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See Back Panel for Additional Precautionary Statements.

**NET CONTENTS:**



**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

#### **PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in area where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

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Wellmark International  
Bensenville IL 60106

EPA Reg. No. 2724-427  
Made in USA

EPA Est. No.:

For information, call 1-800-XXX-XXXX.

[Optional text]

ZOECON RF-342

EMULSIFIABLE CONCENTRATE FOR TOBACCO

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and Storage Facilities

**ACTIVE INGREDIENT:**

(S)-Methoprene [Isopropyl (2E,4E,7S)-

11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate]:..... 33.6%

**INERT INGREDIENTS:** ..... 66.4%

Total: ..... 100.0%

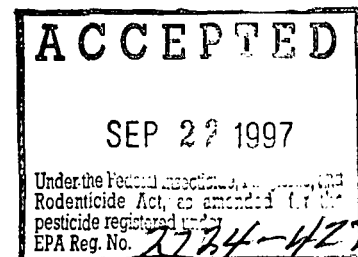
This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

KEEP OUT OF REACH OF CHILDREN

**CAUTION**

See Back Panel for Additional Precautionary Statements.

NET CONTENTS:



**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

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Indian meal moth (*Plodia interpunctella*)  
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Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

#### **PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of rinsate or equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

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**Application with Cold Aerosol Generators:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in area where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

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Wellmark International  
Bensenville IL 60106

EPA Reg. No. 2724-427  
Made in USA

EPA Est. No.:

For information, call 1-800-XXX-XXXX.

**METHOPRENE REREGISTRATION PRODUCT OVERVIEW**

**September 5, 1997**

PRODUCT	STAMPED LABEL	NOMINAL*	PRN 96-6	NAME CHANGE	CSF
2724-401 Zoecon RF-299 RTU Carpet Pump Spray	last stamped label 12/16/91	meth. 0.007% to 0.010% permethrin 0.25% to 0.28% 9/97	NA	Submit 9/97	9/97
2724-420 Zoecon RF-329 Ant Growth Regulator	Don't have copy	4.8% to 4.9% 9/97	NA	Submit 9/97	9/97
2724-426 Zoecon RF-372 Collar	last stamped label 9/21/94	Yes	Submit 9/97	Submit 9/97	9/97
2724-427 Zoecon RF-342 Emulsifiable Concentrate for Tobacco (Dianex)	last stamped label 12/90	32.8% to 33.6% 9/97	NA	Submit 9/97	9/97
2724-441 Zoecon Methoprene Technical (RS)	last stamped label 4/5/93	90% to 94% 9/97	NA	Submit 9/97	9/97
2724-452 Apex 5E (RS)	last stamped label 6/1/94/WPS	65.7% to 67% 9/97	NA	Submit 9/97	9/97
2724-460 Zoecon 9207 Collar	last stamped label 4/5/94	2% to 2.1% 9/97	Submit 9/97	Submit 9/97	9/97
55947-94 NEW: 2724-477 Diacon (RS)	last stamped label 7/6/88	65.7% to 67% 9/97	NA	Submit 9/97	9/97
<b>Reregistration - Recently Approved - First Submission</b>					
2724-471 Methoprene/Chlorpyrifos Combination Collar for Dogs	3/10/97	Yes	Submit 9/97	Submit 9/97	9/97
2724-473 Altosid 10% Cattle Premix	5/5/97	Yes	NA	Submit 9/97	9/97

\* Values shown represent a change to nominal concentration for methoprene ai. Changes to other ai's are noted by name or abbreviation (PBO, permethrin)

**SANDOZ AGRO, Inc. - Label Review Sheet**

<b>FILENAME:</b>	L:\LABELS\CAHSPEC\02724427\p342ECTA.97A	<b>COVERSHEET UPDATE:</b>	June 1997
<b>PRODUCT:</b>	ZOECON RF-342 EMULSIFIABLE CONCENTRATE FOR TOBACCO	<b>EPA REG. NO.:</b>	2724-427
<b>APPROVED</b> :	<b>SUPERSEDES:</b>		

**OVERVIEW: LABEL SUBMITTED FOR METHOPRENE REREGISTRATION LABEL/NOMINAL/NAME CHANGE SANDOZ TO WELLMARK**

Page #	Description of Major Changes
1	Added [Optional text] For Protection of Stored Tobacco.... (taken from marketing label) Changed ingredient statement to nominal
2	Updated Environmental Hazards Statement per rereg. doc.
3	Revised address, added information phone number and revised warranty from Zoecon to generic

[Optional text]

ZOECON RF-342

EMULSIFIABLE CONCENTRATE FOR TOBACCO

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and Storage Facilities

**ACTIVE INGREDIENT:**

(S)-Methoprene [Isopropyl (2E,4E,7S)-

11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate]: ..... ~~32.8~~**33.6**%

**INERT INGREDIENTS:** ..... ~~67.2~~**66.4**%

Total: ..... 100.0%

This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient

KEEP OUT OF REACH OF CHILDREN

**CAUTION**

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NET CONTENTS:

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#### WARRANTY AND CONDITIONS OF SALE

~~Zoecon Corporation~~ **Seller makes no warranties, express or implied, concerning the use and handling of that this product conforms to the chemical description other than indicated on the label. and is useful for the control of insect pests as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.**


~~Zoecon Corporation~~  
~~A Sandoz Company~~  
~~12200 Denton Drive, Dallas, Texas 75234~~  
**Wellmark International**  
**Bensenville IL 60106**

EPA Reg. No. 2724-427  
Made in USA

EPA Est. No.:

**For information, call 1-800-XXX-XXXX**



(A) 	United States Environmental Protection Agency Office of Pesticide Programs (H7505C) Washington, DC 20460	<input type="checkbox"/> Registration	OPP Identifier Number  <b>156413</b>
		<input checked="" type="checkbox"/> Other	
Application for Pesticide:			

## Section I

1. Company/Product Number 2724-427	2. EPA Product Manager Phil Hutton	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Zoecon RF-342 Emulsifiable Concentrate	PM# 18	
5. Name and Address of Applicant (Include ZIP Code) Zoecon Corporation A Sandoz Company 12200 Denton Drive Dallas TX 75234 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____ Product Name _____	

## Section II

<input type="checkbox"/> Amendment - Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input checked="" type="checkbox"/> Other - explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Application for Reregistration

## Section III

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input checked="" type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted.		If "Yes," Unit Package wgt.	No. per container
		If "Yes," Package wgt.	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) of Retail Container 1 oz. - 128 oz.	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner In Which Label Is Affixed To Product <input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Stenciled		<input type="checkbox"/> Other (_____)	

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Kelly J. Parker	Title Regulatory Specialist	Telephone No. (Include Area Code) 214/888-8726
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)  <b>219</b>
2. Signature 	3. Title Regulatory Specialist	
4. Typed Name Kelly J. Parker	5. Date 20 November 1991	

## PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
6. EPA Use Only.

<b>(A)</b>  United States Environmental Protection Agency Office of Pesticide Programs (H7505C) Washington, DC 20460	<b>Application for Pesticide:</b> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;"> <input type="checkbox"/> Registration  <input type="checkbox"/> Amendment  <input checked="" type="checkbox"/> Other         </div> <div style="border: 1px solid black; padding: 2px; text-align: center;">           OPP Identifier Number  <b>156413</b> </div> </div>
--	--

**Section I**

1. Company/Product Number 2724-427	2. EPA Product Manager Phil Hutton	3. Proposed Classification <div style="display: flex; justify-content: space-around;"> <input checked="" type="checkbox"/> None         <input type="checkbox"/> Restricted       </div>
4. Company/Product (Name) Zoecon RF-342 Emulsifiable Concentrate	PM# 18	
5. Name and Address of Applicant (Include ZIP Code) Zoecon Corporation A Sandoz Company 12200 Denton Drive Dallas TX 75234 <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____  Product Name _____

**Section II**

<input type="checkbox"/> Amendment - Explain below  <input type="checkbox"/> Resubmission in response to Agency letter dated _____  <input type="checkbox"/> Notification - Explain below.	<div style="border: 1px solid black; padding: 2px;"> <input type="checkbox"/> Final printed labels in response to Agency letter dated _____   <input type="checkbox"/> "Me Too" Application.   <input checked="" type="checkbox"/> Other - explain below.       </div>
--	--

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

## Application for Reregistration

**Section III**

<b>1. Material This Product Will Be Packaged In:</b>			
Child-Resistant Packaging <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Yes*         <input checked="" type="checkbox"/> No       </div>	Unit Packaging <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Yes         <input checked="" type="checkbox"/> No       </div>	Water Soluble Packaging <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Yes         <input checked="" type="checkbox"/> No       </div>	2. Type of Container <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;"> <input checked="" type="checkbox"/> Metal  <input checked="" type="checkbox"/> Plastic  <input checked="" type="checkbox"/> Glass  <input type="checkbox"/> Paper  <input type="checkbox"/> Other (Specify) _____         </div> </div>
* Certification must be submitted.		If "Yes," Unit Package wgt.      No. per container If "Yes," Package wgt.      No. per container	
3. Location of Net Contents Information <div style="display: flex; justify-content: space-around;"> <input checked="" type="checkbox"/> Label         <input type="checkbox"/> Container       </div>	4. Size(s) of Retail Container 1 oz. - 128 oz.	5. Location of Label Directions <div style="display: flex; justify-content: space-around;"> <input checked="" type="checkbox"/> On Label         <input type="checkbox"/> On Labeling accompanying product       </div>	
6. Manner In Which Label Is Affixed To Product <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;"> <input checked="" type="checkbox"/> Lithograph  <input checked="" type="checkbox"/> Paper glued  <input checked="" type="checkbox"/> Stenciled         </div> <input type="checkbox"/> Other ( _____ )       </div>			

**Section IV**

<b>1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)</b>			
Name Kelly J. Parker	Title Regulatory Specialist	Telephone No. (Include Area Code) 314/888-9770	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			7. Date Application Received (Stamped) <div style="border: 1px solid black; padding: 5px; text-align: center;">           NOV 20 1991         </div>
2. Signature 	3. Title Regulatory Specialist		<b>221</b>
4. Typed Name Kelly J. Parker	5. Date 20 November 1991		

## PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III (Packaging and Container Information)** - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product label is attached to retail container.

**SECTION IV (Contact Point)** - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
6. EPA Use Only.

DEC 16 1991

U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs

ZOECON INDUSTRIES, INC.  
12200 DENTON DRIVE  
DALLAS, TX 75234

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your transmittal of 11/25/91. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

**Zoecon Corporation**

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

20 November 1991

Mr. Willie Nelson  
Product Management Team (18)  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall, Bldg. 2  
1921 Jefferson Davis Hwy.  
Arlington, VA 22202

RE: Methoprene Reregistration, List A - Case 0030

Dear Mr. Nelson:

Enclosed in quadruplicate are data in support of reregistration of the subject products containing methoprene as the active ingredient. Please disregard suffixes in the code names for products. Those are strictly internal designations.

**Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286**  
**Product Specific ID# 2724-RD-7**

<u>MRID Number</u>	<u>Study</u>
_____	<u>Wilkins, C. Storage Stability of Methoprene EC 65% (RF 174) EPA Reg. No. 2724-286, 2724-405, 55947-88, 55947-94. Zoecon Study Number 1747. Unpublished. 22 pages.</u>
_____	<u>Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., Precision and Accuracy for Current Analytical Procedure (CAP) Number 337, "Determination of Methoprene in RF 174 by Gas Chromatography Analysis". Zoecon Study Number 1539. Unpublished. 16 pages.</u>
_____	<u>McDaniel, J., Moorman, R., Nguyen, K., Thornton, K., Sheehan, T., Lephart, J., Color, Physical State, Odor, Specific Gravity, pH, Flashpoint, and Viscosity of RF 174, EPA Registration Numbers 2724-286, 2724-405, 55947-88 and 55947-94. Zoecon Study Number 1758. Unpublished. 23 pages.</u>
_____	<u>Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R174 SAN 300 I 66EC: Acute Oral Toxicity Study in Male and Female Rats. SRI Study No. LSC 2673-M027-91. Zoecon Study No. 1728. Unpublished. 41 pages.</u>
_____	<u>Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R174 SAN 300 I 66EC: Primary Skin Irritation Study in Rabbits. SRI Study No. LSC 2673-M029-91. Zoecon Study No. 1730. Unpublished. 40 pages.</u>

Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R174 SAN 800 I 66EC: Eye Irritation Study in Rabbits. SRI Study No. LSC 2673-M030-91. Zoecon Study No. 1731. Unpublished. 42 pages.

Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R174 SAN 800 I 66EC: Acute Dermal Toxicity Study in Male and Female Rabbits. SRI Study No. LSC 2673-M028-91. Zoecon Study No. 1729. Unpublished. 39 pages.

Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R174 SAN 800 I 66EC: Skin Sensitization Study in Guinea Pigs. SRI Study No. LSC 2673-M031-91. Zoecon Study No. 1732. Unpublished. 60 pages.

Please note that these data are also being submitted in support of Diacon, EPA Reg. No. 55947-94, Product ID# 55947-RD-94 for our sister company, Sandoz Crop Protection Corporation.

**Apex 5E, EPA Reg. No. 55947-88**  
**Product Specific ID# 55947-RD-88**

Zoecon Studies 1539, 1728, 1729, 1730, 1731, 1732, 1747, 1758 are all applicable to this product. The formulations are identical, the registered use sites are different. A letter certifying Zoecon Corporation as an agent of Sandoz Crop Protection Corporation, is being provided under separate cover. As their agent, we are providing the above data in support of the Apex 5E registration currently being transferred to Zoecon.

**Zoecon RF-274 Fogger, EPA Reg. No. 2724-337**  
**Product Specific ID# 2724-RD-22**

<u>MRID Number</u>	<u>Study</u>
	Wilkins, C. <u>Stability of (S)-Methoprene/Permethrin Solvent Based Fogger/Aerosol (RF274B) EPA Reg. No. 2724-337.</u> Zoecon Study Number 1301. Unpublished. 14 pages.
	Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., <u>Precision and Accuracy for Current Analytical Procedure (CAP) Number 63C, "Procedure for the Analysis of Permethrin and Methoprene in RF 274 and RF 280 (Solvent Based Foggers and Aerosols)".</u> Zoecon Study Number 1539. Unpublished. 21 pages.
	Clark, A. <u>Physical and Chemical Properties Testing for Zoecon RF-274 Fogger.</u> MRI No. 9914-F. Zoecon No. 1672. Unpublished. 13 pages.
	McDaniel, J. <u>Flash Point Determination of Zoecon RF-274 Fogger Concentrate.</u> Zoecon Study Number 1680. Unpublished. 8 pages.
	Schindler, J.E., and Baldwin, R.C. <u>Zoecon Sample No. R274B SAN 1139 I5.8AE Skin Sensitization Study in Guinea Pigs.</u> SRI Study No. LSC 2673-M037-91. Zoecon Study No. 1738. Unpublished. 55 pages.

**Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338**  
**Product Specific ID# 2724-RD-23**

<u>MRID Number</u>	<u>Study</u>
	Clark, A. <u>Physical and Chemical Properties Testing for Zoecon RF-275 Pressurized Spray.</u> MRI No. 9914-F. Zoecon No. 1674. Unpublished. 15 pages.
	McDaniel, J. <u>Flash Point Determination of Zoecon RF-275 Aerosol Concentrate.</u> Zoecon Study Number 1680. Unpublished. 8 pages.
	Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., <u>Precision and Accuracy for Current Analytical Procedure (CAP) Number 324 "Procedure for the Analysis of Methoprene, Synergist MGK-264, Pyrethrins and PBO in a Water-Based System (Including RF 275)".</u> Zoecon Study Number 1539. Unpublished. 19 pages.

**Zoecon RF-280 Aerosol, EPA Reg. No. 2724-339**  
**Product Specific ID# 2724-RD-24**

<u>MRID Number</u>	<u>Study</u>
_____	Clark, A. <u>Physical and Chemical Properties Testing for Zoecon RF-280 Aerosol</u> . MRI No. 9914-F. Zoecon No. 1671. Unpublished. 13 pages.
_____	McDaniel, J. <u>Flash Point Determination of Zoecon RF-280 Aerosol Concentrate</u> . Zoecon Study Number 1680. Unpublished. 8 pages.

Zoecon Study 1301, 1539, and 1738 listed above for Zoecon RF-274 Fogger are also applicable to this product. The only difference in the two products is a small difference in the amount of propellant.

**Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352**  
**Product Specific ID# 2724-RD-25**

<u>MRID Number</u>	<u>Study</u>
_____	Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., <u>Precision and Accuracy for Current Analytical Procedure (CAP) Number 329, "Procedure for the Analysis for Methoprene in a Methoprene Emulsifiable Concentrate (RF 291)"</u> . Zoecon Study Number 1539. Unpublished. 16 pages.
_____	McDaniel, J., Moorman, R., Nguyen, K., Thornton, K., Sheehan, T., Lephart, J. <u>Color, Physical State, Odor, Specific Gravity, Flammability-Flashpoint, and Viscosity of RF-291, EPA Registration Number 2724-352</u> . Zoecon Study Number 1667. Unpublished. 23 pages.

**Zoecon RF-293 Methoprene Bolus, EPA Reg. No. 2724-356**  
**Product Specific ID# 2724-RD-26**

_____	Wilkins, C. <u>Storage Stability of Methoprene Bolus (RF 293) EPA Reg. No. 2724-356</u> . Zoecon Study Number 1744. Unpublished. 19 pages.
_____	Moorman, R., Thornton, K., Sheehan, T., Lephart, J. <u>Color, Physical State, Odor, and Density of RF 293, EPA Registration Number 2724-356</u> . Zoecon Study Number 1712. Unpublished. 17 pages.
_____	Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., <u>Precision and Accuracy for Current Analytical Procedure (CAP) Number 223C, "Procedure for the Analysis of Methoprene in RF 293, (Methoprene Bolus)"</u> . Zoecon Study Number 1539. Unpublished. 16 pages.

**Zoecon RF-297 Aerosol, EPA Reg. No. 2724-360**  
**Product Specific ID# 2724-RD-27**

<u>MRID Number</u>	<u>Study</u>
_____	Wilkins, C. <u>Storage Stability of (S)-Methoprene/Permethrin Water Based Aerosol... (RF297A) EPA Reg. No. 2724-360</u> . Zoecon Number 1308. Unpublished. 14 pages.
_____	Clark, A. <u>Physical and Chemical Properties Testing for Zoecon RF-297 Aerosol</u> . MRI No. 9914-F. Zoecon No. 1673. Unpublished. 15 pages.
_____	McDaniel, J. <u>Flash Point Determination of Zoecon RF-297 Aerosol Concentrate</u> . Zoecon Study Number 1680. Unpublished. 9 pages.
_____	Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., <u>Precision and Accuracy for Current Analytical Procedure (CAP) Number 310 "Procedure for the Analysis of Water Based Aerosols Containing Permethrin and Methoprene (Including RF 297)"</u> . Zoecon Study Number 1539. Unpublished. 20 pages.

\_\_\_\_\_  
Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R297 ZOE 014I.47AE: Acute Oral Toxicity Study in Male and Female Rats. SRI Study No. LSC 2561-M008-91. Zoecon Study No. 1675. Unpublished. 34 pages.

\_\_\_\_\_  
Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R297 ZOE 014I.47AE: Acute Dermal Toxicity Study in Male and Female Rabbits. SRI Study No. LSC 2561-M009-91. Zoecon Study No. 1676. Unpublished. 43 pages.

\_\_\_\_\_  
Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R297 ZOE 014I.47AE: Primary Skin Irritation Study in Rabbits. SRI Study No. LSC 2561-M010-91. Zoecon Study No. 1677. Unpublished. 42 pages.

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Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R297 ZOE 014I.47AE: Primary Eye Irritation Study in Rabbits. SRI Study No. LSC 2561-M011-91. Zoecon Study No. 1678. Unpublished. 44 pages.

\_\_\_\_\_  
Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R297 ZOE 014I.47AE: Skin Sensitization Study in Guinea Pigs. SRI Study No. LSC 2561-M012-91. Zoecon Study No. 1679. Unpublished. 59 pages.

**ALTOSID CP-10, EPA Reg. No. 2724-367**  
**Product Specific ID# 2724-RD-28**

\_\_\_\_\_  
Moorman, R., Thornton, K., Sheehan, T., Lephart, J. Color, Physical State, Odor, and Density of RF 74, EPA Registration Number 2724-367. Zoecon Study Number 1712. Unpublished. 17 pages.

\_\_\_\_\_  
Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., Precision and Accuracy for Current Analytical Procedure (CAP) Number 77A, "Procedure for the Analysis of (R,S)-Methoprene in RF 74, (CP10)". Zoecon Study Number 1539. Unpublished. 16 pages.

**Granular IGR Cattle Supplement, EPA Reg. No. 2724-372**  
**Product Specific ID# 2724-RD-30**

\_\_\_\_\_  
Sheehan, T. Precision and Accuracy for Current Analytical Procedure (CAP) Number 335, "Procedure for the Analysis for (R,S)-Methoprene in Zoecon's Granular and Block Cattle Supplements EPA REG NOS 2724-372 and 2724-373". Zoecon Study Number 1721. Unpublished. 22 pages.

\_\_\_\_\_  
Moorman, R., Thornton, K., Sheehan, T., Lephart, J. Color, Physical State, Odor, and Density for 9118SAN800I0.02GB, Granular Feed Supplement, EPA Registration Number 2724-372. Zoecon Study Number 1726. Unpublished. 17 pages.

**Block IGR Cattle Supplement, EPA Reg. No. 2724-373**  
**Product Specific ID# 2724-RD-31**

MRID Number      Study

\_\_\_\_\_  
Moorman, R., Thornton, K., Sheehan, T., Lephart, J. Color, Physical State, Odor, and Density for 9119SAN800I0.02BB, Block Feed Supplement, EPA Registration Number 2724-373. Zoecon Study Number 1726. Unpublished. 17 pages.

Zoecon Study 1721 listed above for Granular IGR Cattle Supplement (EPA Reg. No. 2724-372) also provides precision and accuracy data for this cattle supplement product. The formulas are essentially identical.

**ALTOSID Briquets, EPA Reg. No. 2724-375**  
**Product ID# 2724-RD-33**

<u>MRID Number</u>	<u>Study</u>
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_____	Moorman, R., Nguyen, K., Thornton, K., Sheehan, T., Lephart, J. <u>Color, Physical State, Odor, and Density of RF 433N, EPA Registration Number 2724-375.</u> Zoecon Study Number 1712. Unpublished. 17 pages.
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_____	Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., <u>Precision and Accuracy for Current Analytical Procedure (CAP) Number 325, "Procedure for the Analysis of Methoprene in RF 433N (30 Day Briquet and Briquet Premix)".</u> Zoecon Study Number 1539. Unpublished. 16 pages.
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**Kabat Tobacco Protector, EPA Reg. No. 2724-377**  
**Product Specific ID# 2724-RD-34**

<u>MRID Number</u>	<u>Study</u>
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_____	McDaniel, J., Moorman, R., Thornton, K., Sheehan, T., Lephart, J. <u>Color, Physical State, Odor, Specific Gravity, Flammability-Flashpoint, and Viscosity of RF-385N, EPA Registration Number 2724-377.</u> Zoecon Study Number 1667. Unpublished. 23 pages.
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_____	Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., <u>Precision and Accuracy for Current Analytical Procedure (CAP) Number 321 "Determination of Methoprene in RF 385N and RF 386N (Kabat)".</u> Zoecon Study Number 1539. Unpublished. 17 pages.
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**Kabat Protector Concentrate, EPA Reg. No. 2724-384**  
**Product Specific ID# 2724-RD-36**

<u>MRID Number</u>	<u>Study</u>
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_____	McDaniel, J., Moorman, R., Thornton, K., Sheehan, T., Lephart, J. <u>Color, Physical State, Odor, Specific Gravity, Flammability-Flashpoint, and Viscosity of RF-386N, EPA Registration Number 2724-384.</u> Zoecon Study Number 1667. Unpublished. 21 pages.
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Zoecon Study 1539 listed above for Kabat Tobacco Protector provides precision and accuracy data on the analytical method for both products. These two products are identical except in the level of methoprene; the Kabat Tobacco Protector is 5% methoprene and the Concentrate product is 80% methoprene.

**Altosid Liquid Larvicide, EPA Reg. No. 2724-392**  
**Product Specific ID# 2724-41**

<u>MRID Number</u>	<u>Study</u>
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_____	McDaniel, J., Moorman, R., Nguyen, K., Thornton, K., Sheehan, T., Lephart, J. <u>Color, Physical State, Odor, Specific Gravity, Flammability-Flashpoint, and Viscosity of RF-438N, EPA Registration Number 2724-392.</u> Zoecon Study Number 1667. Unpublished. 24 pages.
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_____	Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., <u>Precision and Accuracy for Current Analytical Procedure (CAP) Number 328, "Procedure for the Analysis of (S)-Methoprene in RF 437N, RF438N and RF 329 (Altosid Liquid Larvicide SR-20, SR-5 and Pharorid)".</u> Zoecon Study Number 1539. Unpublished. 23 pages.
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**Altosid Liquid Larvicide Concentrate, EPA Reg. No. 2724-393**  
**Product Specific ID# 2724-42**

<u>MRID Number</u>	<u>Study</u>
_____	McDaniel, J., Moorman, R., Nguyen, K., Thornton, K., Sheehan, T., Lephart, J. <u>Color, Physical State, Odor, Specific Gravity, pH, Flammability-Flashpoint, and Viscosity of RF-437N, EPA Registration Numbers 2724-393 and 2724-446.</u> Zoecon Study Number 1667. Unpublished. 24 pages.
_____	Schindler, J.E., and Baldwin, R.C. <u>Zoecon Sample No. R437N SAN 810 I20CS: Acute Oral Toxicity Study in Male and Female Rats.</u> SRI Study No. LSC 2673-M032-91. Zoecon Study No. 1733. Unpublished. 36 pages.
_____	Schindler, J.E., and Baldwin, R.C. <u>Zoecon Sample No. R437N SAN 810 I20CS: Acute Dermal Toxicity Study in Male and Female Rabbits.</u> SRI Study No. LSC 2673-M033-91. Zoecon Study No. 1734. Unpublished. 41 pages.
_____	Schindler, J.E., and Baldwin, R.C. <u>Zoecon Sample No. R437N SAN 810 I20CS: Primary Skin Irritation Study in Rabbits.</u> SRI Study No. LSC 2673-M034-91. Zoecon Study No. 1735. Unpublished. 39 pages.
_____	Schindler, J.E., and Baldwin, R.C. <u>Zoecon Sample No. R437N SAN 810 I20CS: Eye Irritation Study in Rabbits.</u> SRI Study No. LSC 2673-M035-91. Zoecon Study No. 1736. Unpublished. 44 pages.
_____	Schindler, J.E., and Baldwin, R.C. <u>Zoecon Sample No. R437N SAN 810 I20CS: Skin Sensitization Study in Guinea Pigs.</u> SRI Study No. LSC 2673-M036-91. Zoecon Study No. 1737. Unpublished. 54 pages.

Zoecon Study Number 1539 listed above for Altosid Liquid Larvicide provides precision and accuracy data on the analytical method for both products.

**Zoecon RF-299 RTU Carpet Pump Spray, EPA Reg. No. 2724-401**  
**Product Specific ID# 2724-44**

<u>MRID Number</u>	<u>Study</u>
_____	Wilkins, C. <u>Stability of (S)-Methoprene/Permethrin Pump Spray EPA Reg. No. 2724-401.</u> Zoecon Study Number 1283. Unpublished. XX pages.
_____	McDaniel, J., Moorman, R., Nguyen, K., Thornton, K., Sheehan, T., Lephart, J. <u>Color, Physical State, Odor, Specific Gravity, pH, Flammability-Flashpoint, and Viscosity of RF-299, EPA Registration Number 2724-401.</u> Zoecon Study Number 1667. Unpublished. 23 pages.
_____	Lephart, J. <u>Method Validation for the Analysis of (R,S)-Methoprene or (S)-Methoprene and Permethrin in a RTU Water-based Carpet Spray.</u> Zoecon Project Code R299SAN1129I.26AL. 1303 Report-VMOA. Unpublished. 62 pages.

**Zoecon RF-322 Ovicidal Pump Spray, EPA Reg. No. 2724-404**  
**Product Specific ID# 2724-RD-46**

<u>MRID Number</u>	<u>Study</u>
_____	Wilkins, C. <u>Stability of Ovitrol Flea &amp; Tick Pump Spray (RF322) EPA Reg. No. 2724-401 (sic).</u> Zoecon Study Number 1283. Unpublished. XX pages.
_____	Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., <u>Precision and Accuracy for Current Analytical Procedure (CAP) Number 242B, "Procedure for the Analysis of S-Methoprene, PBO, Pyrethrins and MGK-264 in Alcohol-Based Pump Spray (Including RF 322)".</u> Zoecon Study Number 1539. Unpublished. 20 pages.

McDaniel, J., Moorman, R., Nguyen, K., Thornton, K., Sheehan, T., Lephart, J. Color, Physical State, Odor, Specific Gravity, pH, Flammability-Flashpoint, and Viscosity of RF-322, EPA Registration Number 2724-404. Zoecon Study Number 1667. Unpublished. 23 pages.

**Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420**  
**Product Specific ID# 2724-RD-48**

MRID Number      Study

McDaniel, J., Moorman, R., Thornton, K., Sheehan, T., Lephart, J. Color, Physical State, Odor, Specific Gravity, Flammability-Flashpoint, and Viscosity of RF-329, EPA Registration Number 2724-420. Zoecon Study Number 1667. Unpublished. 24 pages.

Schindler, J.E., and Baldwin, R.C. Zoecon Sample No. R329 SAN 810 I4.8CB: Skin Sensitization Study in Guinea Pigs. SRI Study No. LSC 2673-M038-91. Zoecon Study No. 1739. Unpublished. 56 pages.

Zoecon Study 1539 listed above for ALTOSID Liquid Larvicide, EPA Reg. No. 2724-392 is also applicable to this product as they are essentially identical formulations.

**Zoecon RF-292 Briquet, EPA Reg. No. 2724-421**  
**Product Specific ID# 2724-RD-49**

MRID Number      Study

Moorman, R., Thornton, K., Sheehan, T., Lephart, J. Color, Physical State, Odor, and Density of RF 292A, EPA Registration Number 2724-421. Zoecon Study Number 1712. Unpublished. 17 pages.

Nguyen, K. Method for the Assay of S-Methoprene in Briquets. Zoecon Study TR-1275. Unpublished. 70 pages.

**Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427**  
**Product Specific ID# 2724-RD-50**

MRID Number      Study

42107801

Moorman, R., Thornton, K., Nguyen, K., Sheehan, T., Lephart, J., Precision and Accuracy for Current Analytical Procedure (CAP) Number 330, "Procedure for the Analysis for Methoprene in RF 342 (Dianex)". Zoecon Study Number 1539. Unpublished. 16 pages.

42107802

McDaniel, J., Moorman, R., Nguyen, K., Thornton, K., Sheehan, T., Lephart, J. Color, Physical State, Odor, Specific Gravity, pH, Flammability-Flashpoint, and Viscosity of RF-342, EPA Registration Number 2724-427. Zoecon Study Number 1667. Unpublished. 23 pages.

**Methoprene Technical, EPA Reg. No. 2724-441**  
**Product Specific ID# 2724-RD-56**

MRID Number      Study

McDaniel, J., Moorman, R., Nguyen, K., Thornton, K., Sheehan, T., Lephart, J. Color, Physical State, Odor, Specific Gravity, pH, Flammability-Flashpoint, and Viscosity of (R,S)-Methoprene, EPA Registration Number 2724-441. Zoecon Study Number 1665. Unpublished. 21 pages.

Moorman, R., Thornton, K., Nguyen K., Sheehan, T., Lephart, J., Precision and Accuracy for Current Analytical Procedure (CAP) Number 284, "Procedure for The Analysis of Technical Methoprene (EPA Registration Numbers 2724-441 and 2724-442)". Zoecon Study Number 1539. Unpublished. 17 pages.

**(S)-Methoprene Technical, EPA Reg. No. 2724-442**  
**Product Specific ID# 2724-RD-51**

MRID Number

Study

McDaniel, J., Moorman, R., Thornton, K., Sheehan, T., Lephart, J. Color, Physical State, Odor, Specific Gravity, pH, Flammability-Flashpoint, and Viscosity of (S)-Methoprene, EPA Registration Number 2724-442. Zoecon Study Number 1669. Unpublished. 21 pages.

Zoecon Study 1539 listed above for Methoprene Technical also provides precision and accuracy data for the current analytical procedure for S-Methoprene Technical.

**Zoecon RF-437 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446**  
**Product Specific ID# 2724-RD-439**

Zoecon Studies 1667, 1733, 1734, 1735, 1736, 1737 listed above for ALTOSID Liquid Larvicide Concentrate are also applicable to this product, since their formulations are identical. The only difference in the two products is in their labels; ALTOSID Liquid Larvicide is a manufacturing-use product and RF-437 carries an end-use label.

Zoecon Study 1539 listed above for ALTOSID Liquid Larvicide, EPA Reg. No. 2724-392 is also applicable to this product as they are essentially identical formulations.

**Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448**  
**Product Specific ID# 2724-RD-52**

MRID Number

Study

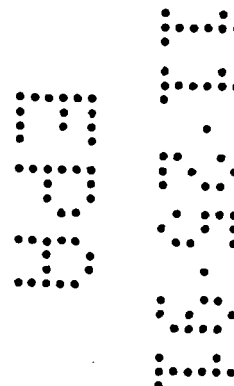
Nguyen, K. Method Validation for the Analysis of (S)-Methoprene in Altosid Pellets and Premix. Zoecon Project Code R330SAN810I4XX. 1413 Report-VMOA. Unpublished. 34 pages.

Schweitzer, M. Product Chemistry of Altosid Pellets. Battelle Study Number SC900157. Zoecon Study Number 1565. Unpublished. 24 pages.

Best regards,

*Kelly J. Parker*

Kelly J. Parker  
Regulatory Specialist  
800/527-0512



11/20

Zoecon Corporation

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

25 November 1991

Mr. Phil Hutton  
Product Manager 18  
Insecticide-Rodenticide Branch  
Office of Pesticide Programs (H7504C)  
Document Processing Desk (6(a)(2))  
Room 266A, Crystal Mall 2  
U.S. Environmental Protection Agency  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Adverse Effects Discovered In Toxicology Data

Dear Mr. Hutton:

The following studies were submitted in accordance with the R.E.D. for Methoprene. These studies had surprising results; hence, considered by EPA to be adverse effects. Please note that we have not seen confirmation of these results from product use in the marketplace.

Schindler, J.E. and Baldwin, R.C. Zoecon Sample No. R174 SAN 800 I 66EC:  
Primary Skin Irritation Study in Rabbits. SRI Study No. LSC 2673-M029-91.  
Zoecon Study No. 1730. Unpublished. 40 Pages. (See note 1.)

Results: The 72-hour mean irritation score was 1.0 placing this product in Tox Category IV; however, 2 rabbits showed irritation through 21 days after patch removal.

Schindler, J.E. and Baldwin, R.C. Zoecon Sample No. R174 SAN 800 I 66EC:  
Skin Sensitization Study in Guinea Pigs. SRI Study No. LSC 2673-M031-91.  
Zoecon Study No. 1732. Unpublished. 60 Pages. (See note 1.)

Results: This study showed a positive response.

Schindler, J.E. and Baldwin, R.C. Zoecon Sample No. R297 ZOE 014 I 17AE:  
Primary Skin Irritation Study in Rabbits. SRI Study No. LSC 2561-M010-91.  
Zoecon Study No. 1677. Unpublished. 42 Pages. (See note 2.)

Results: The 72-hour mean irritation score was 3.8 placing this product in Tox Category III; however, 2 rabbits showed irritation to 21 days after patch removal.

part of transmittal

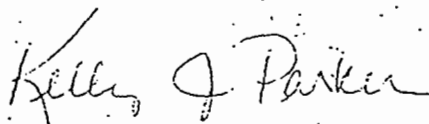
Schindler, J.E. and Baldwin, R.C. Zoecon Sample No. R437N SAN 810 I 20CS:  
Skin Sensitization Study In Guinea Pigs. SRI International. SRI Study No.  
LSC 2673-M036-91. Zoecon Study No. 1737. Unpublished. 54 Pages. (See note  
3.)

Results: This study showed a positive response.

Notes:

1. Zoecon Sample No. R174 SAN 800 I 66EC is the test material code for EPA  
Registration Numbers 2724-286 and 55947-88 (Under separate cover,  
Sandoz Crop Protection Corporation has certified Zoecon Corporation  
as their agent for this product pending transfer completion).
2. Zoecon Sample No. R297 ZOE 014 I .47 AE is the test material code for  
EPA Registration Number 2724-360.
3. Zoecon Sample No. R437N SAN 810 I 20CS is the test material code for  
EPA Registration Numbers 2724-393, and 2724-446.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

XC with Data: Mr. Gary Sprock  
Registration Specialist  
Department of Pesticide Regulation  
California Environmental Protection Agency  
1220 N Street  
Sacramento, CA 95814

# ZOECON RF-342 EMULSIFIABLE CONCENTRATE FOR TOBACCO

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
Storage Facilities

## ACTIVE INGREDIENTS:

(S)-Methoprene (Isopropyl (2E, 4E, 7S)-  
11-methoxy-3, 7, 11-trimethyl-2, 4-  
dodecadienoate).....

32.8%

INERT INGREDIENTS:.....

67.2%

Total.....

100.0%

This product contains 2.5 lb/gallon (300 grams/liter) (S)-methoprene active ingredient.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Back Panel for Additional Precautionary Statements.

NET CONTENTS:

4.43

16.93 FL

**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

Almond moth (Ephesia cautella)  
Cigarette beetle (Lasioderma serricorne)  
Sawtooth grain beetle (Oryzaephilus surinamensis)  
Red flour beetle (Tribolium castaneum)  
Tobacco moth (Ephesia elutella)  
Indian meal moth (Plodia interpunctella)  
Lesser grain borer (Rhyzopertha dominica)  
Merchant grain beetle (Oryzaephilus mercator)  
Confused flour beetle (Tribolium confusum)  
Warehouse beetle (Trogoderma spp.)

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1,000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in area where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

**STORAGE & DISPOSAL:** **Storage** - Store in a cool, dry place. **Pesticide Disposal** - Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal - [Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

## WARRANTY AND CONDITIONS OF SALE

Zoecon Corporation warrants that this product conforms to the chemical description on the label and is useful for the control of insect pests as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied.

Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive, Dallas, Texas 75234

EPA Reg. No. 2724-427  
1091-B:0150E;RED

EPA Est. 55947-CA-1  
Made in USA  
© 1988 Zoecon

**Zoecon Corporation**

*A SANDOZ Company*

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

10 May 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Request for an Extension of Inhalation Toxicology Data  
Request for a Meeting  
Product Specific ID# 2724-RD-50  
EPA Reg. No. 2724-427

Dear Mr. Nelson:

Zoecon Corporation respectfully requests an extension for submission of inhalation toxicology data for the subject product. Further, we would like to meet with individuals within SRRD, RD and HED of EPA who can authorize policy changes with respect to inhalation toxicology.

First of all, the EPA appears to be taking a hard stand on the tox grouping of methoprene products. What was acceptable to the Agency even three years ago appears not acceptable today...especially accepting (R,S)-Methoprene data as relevant to (S)-Methoprene data.

Secondly, we don't understand the absurdness of the required inhalation studies, both what is required to be tested and, most absurd, how it is to be tested. The limit test which meets current guidelines of 5 mg test material/L of air is impossible to achieve when trying to comply with the SEP which requires that at least 25% of the particles must have a MMAD  $\leq 1 \mu$ . The two "requirements" are mutually exclusive. One laboratory has told us that to achieve both requirements, they do two separate limit tests and hope that EPA can merge the results. This means that the lab requires the sponsor to provide a minimum of 5 kg of test material, as 95% of it will be wasted trying to generate such small particles, as well as obtaining maximum chamber concentrations.

Thirdly, these requirements are cost prohibitive. To generate 5 kg of test material (only for an inhalation toxicology study), could require an unscheduled production run for the active ingredient and/or the end-products. (S)-Methoprene is one of the most expensive active ingredients to manufacture. Two limit studies to reach one conclusion is also costly (our estimate is \$10,000 per limit study, assuming only animal exposure and reduced particle size generation by the laboratory). Analytical costs should also be included in this estimate; however, Zoecon has traditionally conducted the analytical work in-house.

Finally, these requirements are also time prohibitive. The limiting factors include 1) amount of test material required, 2) the chemist's time required to characterize beginning material, to validate the method, and to analyze the chamber samples, 3) laboratory availability (frequently scheduling is required months in advance). Because of the analytical burden of the RED for the product chemistry portion, the analytical work for the inhalation toxicology may be conducted at the inhalation laboratory. This would further increase the time necessary to conduct inhalation studies. All inhalation studies would be conducted at the same laboratory to negate the need for duplicative analytical work. To get on a laboratory master schedule to conduct several studies at once would automatically put us in violation of the 21 November 1991 deadline.

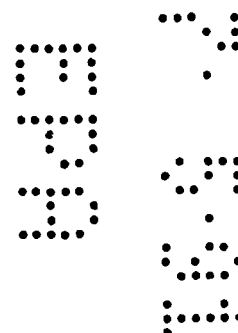
Zoecon requests the time of submission be contingent upon how long it takes EPA to resolve these policy issues. The Society of Toxicology is currently working as a group to suggest changes to this policy; therefore, it seems that this is not only a Zoecon request for a change, but a science- and industry-wide request. We would be happy to set up a room at our hotel to meet with Agency officials. Please let me know when you can schedule this meeting and also if our extension has been granted.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Anne Lindsay, RD, EPA  
Phil Hutton, RD, EPA  
Karen Samek, SRRD, EPA  
Dr. Penelope Fenner-Crisp, HED, EPA  
Dr. Reto Engler, HED, EPA  
Dr. Judith Graham, R&D, EPA (Research Triangle)



**Zoecon Corporation**

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

10 May 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Request for an Extension of Inhalation Toxicology Data  
Request for a Meeting  
Product Specific ID# 2724-RD-50  
EPA Reg. No. 2724-427

Dear Mr. Nelson:

Zoecon Corporation respectfully requests an extension for submission of inhalation toxicology data for the subject product. Further, we would like to meet with individuals within SRRD, RD and HED of EPA who can authorize policy changes with respect to inhalation toxicology.

First of all, the EPA appears to be taking a hard stand on the tox grouping of methoprene products. What was acceptable to the Agency even three years ago appears not acceptable today...especially accepting (R,S)-Methoprene data as relevant to (S)-Methoprene data.

Secondly, we don't understand the absurdness of the required inhalation studies, both what is required to be tested and, most absurd, how it is to be tested. The limit test which meets current guidelines of 5 mg test material/L of air is impossible to achieve when trying to comply with the SEP which requires that at least 25% of the particles must have a MMAD  $\leq 1 \mu$ . The two "requirements" are mutually exclusive. One laboratory has told us that to achieve both requirements, they do two separate limit tests and hope that EPA can merge the results...This means that the lab requires the sponsor to provide a minimum of 5 kg of test material, as 95% of it will be wasted trying to generate such small particles, as well as obtaining maximum chamber concentrations.

..  
..  
..

**Zoecon Corporation**

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

10 May 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Request for an Extension of Inhalation Toxicology Data  
Request for a Meeting  
Product Specific ID# 2724-RD-34  
EPA Reg. No. 2724-377

Dear Mr. Nelson:

Zoecon Corporation respectfully requests an extension for submission of inhalation toxicology data for the subject product. Further, we would like to meet with individuals within SRRD, RD and HED of EPA who can authorize policy changes with respect to Inhalation toxicology.

First of all, the EPA appears to be taking a hard stand on the tox grouping of methoprene products. What was acceptable to the Agency even three years ago appears not acceptable today...especially accepting (R,S)-Methoprene data as relevant to (S)-Methoprene data.

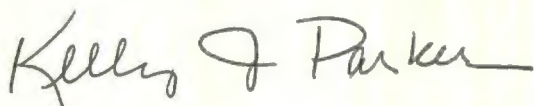
Secondly, we don't understand the absurdness of the required inhalation studies, both what is required to be tested and, most absurd, how it is to be tested. The limit test which meets current guidelines of 5 mg test material/L of air is impossible to achieve when trying to comply with the SEP which requires that at least 25% of the particles must have a MMAD  $\leq 1 \mu$ . The two "requirements" are mutually exclusive. One laboratory has told us that to achieve both requirements, they do two separate limit tests and hope that EPA can merge the results. This means that the lab requires the sponsor to provide a minimum of 5 kg of test material, as 95% of it will be wasted trying to generate such small particles, as well as obtaining maximum chamber concentrations.

Thirdly, these requirements are cost prohibitive. To generate 5 kg of test material (only for an inhalation toxicology study), could require an unscheduled production run for the active ingredient and/or the end-products. (S)-Methoprene is one of the most expensive active ingredients to manufacture. Two limit studies to reach one conclusion is also costly (our estimate is \$10,000 per limit study, assuming only animal exposure and reduced particle size generation by the laboratory). Analytical costs should also be included in this estimate; however, Zoecon has traditionally conducted the analytical work in-house.

Finally, these requirements are also time prohibitive. The limiting factors include 1) amount of test material required, 2) the chemist's time required to characterize beginning material, to validate the method, and to analyze the chamber samples, 3) laboratory availability (frequently scheduling is required months in advance). Because of the analytical burden of the RED for the product chemistry portion, the analytical work for the inhalation toxicology may be conducted at the inhalation laboratory. This would further increase the time necessary to conduct inhalation studies. All inhalation studies would be conducted at the same laboratory to negate the need for duplicative analytical work. To get on a laboratory master schedule to conduct several studies at once would automatically put us in violation of the 21 November 1991 deadline.

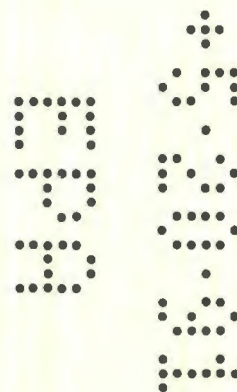
Zoecon requests the time of submission be contingent upon how long it takes EPA to resolve these policy issues. The Society of Toxicology is currently working as a group to suggest changes to this policy; therefore, it seems that this is not only a Zoecon request for a change, but a science- and industry-wide request. We would be happy to set up a room at our hotel to meet with Agency officials. Please let me know when you can schedule this meeting and also if our extension has been granted.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Anne Lindsay, RD, EPA  
Phil Hutton, RD, EPA  
Karen Samek, SRRD, EPA  
Dr. Penelope Fenner-Crisp, HED, EPA  
Dr. Reto Engler, HED, EPA  
Dr. Judith Graham, R&D, EPA (Research Triangle)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JAN 21 1992

OFFICE OF  
PESTICIDES AND TOXIC  
SUBSTANCES

Ms. Kelly Parker  
Regulatory Specialist  
Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive  
Dallas, TX 75234

Dear Ms. Parker:

Subject: Request for an Extension for Storage Stability Data  
To Be Submitted to the Agency and Product Chemistry  
Guideline 151B-17(1)  
(See the enclosed list of products covered)  
Your Submission Dated July 1, 1991

This letter is in response to your letter of the above date submitted in support of the subject products. Under Section 4 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended in 1988, which requires that the Agency reregister pesticides that were first registered before November 1, 1984. Pursuant to this Act, and your response to RED issued under the Provisions of this Act, we have reviewed your submission(s)/request(s) and our conclusions are as follows:

- Your request for an extension of time to complete a 1 year storage stability study is unnecessary, since the Agency has established a policy in December 1991 to treat this data requirement much as it treats efficacy data requirements. The study is to be done and maintained in the registrants' files, but not submitted to the Agency unless the Agency specifically calls for the study at some future time.



Product Chemistry Data Requirements

The following studies are not required for the products listed in the attachment; these studies are needed only for the Technical Grade of the Active Ingredient which have been received by the Agency.

- ° Solubility
- ° Melting Point
- ° Discussion of Formation of Impurities
- ° Boiling Point
- ° Octanol/Water Partition Coefficient
- ° Stability
- ° Analysis of Samples
- ° Vapor Pressure.

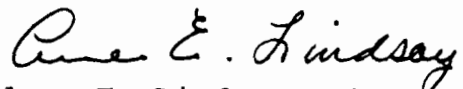
Miscibility-Data are required only if the emulsifiable liquid is intended to be diluted with petroleum solvents, but these products are not intended to be used with petroleum solvent; therefore, the data are not required.

Your request to amend your labeling to include the statement, "Breaks the flea life cycle," submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable, and a stamped copy is enclosed for your records. This stamped label does not constitute reregistration. The RED requirements are yet to be satisfied for that purpose.

Also, the Agency has no objection to the use of the Alternate Trademark "VIGREN" for your private labels instead of PRECOR which will be the trademark for your general product labelings.

Should you need further assistance, please contact Mr(s). Phil Hutton or Willie Nelson, PM Team 18, at (703) 305-6601.

Sincerely,

A handwritten signature in cursive script that reads "Anne E. Lindsay".

Anne E. Lindsay, Director  
Registration Division  
Office of Pesticide Program

STATUS OF METHOPRENE STANDARD

1. Request for a Waiver of Product Performance Data: 7/7/91

Case Number and Name: 0030 Methoprene

EPA REG. NO.'s

2724 - 375  
2724 - 392  
2724 - 393  
2724 - 446  
2724 - 448  
2724 - 421  
2724 - 286  
2724 - 337  
2724 - 338  
2724 - 339  
2724 - 352  
2724 - 356  
2724 - 360  
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2724 - 372  
2724 - 373  
2724 - 373  
2724 - 377  
2724 - 384  
2724 - 401  
2724 - 404  
2724 - 420  
2724 - 427  
2724 - 441  
2724 - 442

## Zoecon Corporation

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

1 July 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

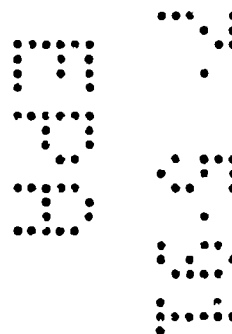
RE: Request for a Waiver of Product Performance Data  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon Corporation respectfully requests a waiver of product performance data for the products listed below.

The requirement as listed in the Methoprene RED states that Guideline 95-10(b)(1): product performance for mosquitoes in cesspools, septic tanks, and waste treatment settling ponds should be followed. These products are not and have never been mosquito control products. These sites do not appear on the labels; therefore, we request a waiver of the product performance data.

<u>EPA Reg. No.</u>	<u>Product Specific ID#</u>
2724-286	2724-RD-7
2724-337	2724-RD-22
2724-338	2724-RD-23
2724-339	2724-RD-24
2724-352	2724-RD-25
2724-356	2724-RD-26
2724-360	2724-RD-27
2724-367	2724-RD-28
2724-368	2724-RD-29
2724-372	2724-RD-30
2724-373	2724-RD-31
2724-377	2724-RD-34



EPA Reg. No. Cont'd.

- 2724-384
- 2724-401
- 2724-404
- 2724-420
- 2724-427
- 2724-441
- 2724-442

Product Specific ID# Cont'd.

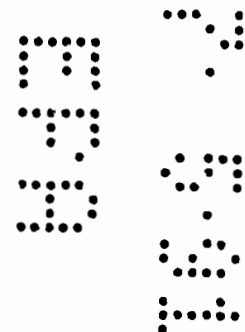
- 2724-RD-36
- 2724-RD-44
- 2724-RD-46
- 2724-RD-48
- 2724-RD-50
- 2724-RD-56
- 2724-RD-51

Best regards,

*Kelly J Parker*

Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



PRODUCT CHEMISTRY REVIEW

TO: PM \_\_\_\_\_ FROM: Reviewer: INDIRA GAIROLA

*Anna Skopas for R.G. 11-19-91*  
Date: 11/14/91

EPA REG. NO.: 2724-27 PRODUCT NAME: Loe Con RF-342 Emulsifiable Concentrate

FOOD USE ( ) INERTS CLEARED: C ( ), D ( ), E ( ) NON FOOD USE ( )  
21 CFR PARTS 170-199: ( ) TOXIC INERTS LIST 1 ( ), 2 ( )

Please provide the requested information for the following checked items:

1. ☐ Submit the product specific product chemistry data for your product. ☐ If submitted earlier, provide MRID Number(s). ☐ Your product is not sufficiently similar to the product you referenced.
2. In reference to the Confidential Statement of Formula (CSF), please provide the following:
  - ☐ a) pH of product or pH at a specified water dilution.
  - ☐ b) Density of product.
  - ☐ c) Flash point of product.
  - ☐ d) Flash point of product with propellant as per item #6(q) or item #5(c).
  - ☐ e) Flame extension of product including flashbacks if noted.
  - ☐ f) The upper and lower certified limits based on the pure active ingredients rather than the technical or concentrate. Note that the lower limit of the active ingredients must be the same as the label claim in pure active form.
  - ☐ g) The upper and lower certified limits of the individually added inerts.
  - ☐ h)
  - ☐ i)
  - ☐ j)

*(2)*  
11/14/91

3. ☐ Based on the current CSF dated \_\_\_\_\_, your product will not meet the label claim for the active ingredient. Please revise the label or the CSF so that the information agrees.

*The applicant has requested for the waiver of certain P.C. data. The same will be discussed on the following page + justification for granting waiver.*

*As per extension of time for Storage Stability (1 year data) and Corrosion Characteristics, may be granted or approved to a period of 18 months*

PRODUCT CHEMISTRY REVIEW (cont'd)

4. ☐ Provide the chemical identity of all components, the percentage composition, CAS Registry Number, and Material Safety Data Sheet (two copies) for the following compounds:

- 1.
- 2.
- 3.
- 4.
- 5.

The supplier may contact EPA directly referencing the File Symbol or EPA Registration Number in their response. For dyes, provide the color index and CAS Registry Numbers for all components. For perfumes and flavorings, provide for each component in the mixture: the chemical name, CAS Registry Number, and the percentage or range in percentage in the mixture. Certify that flavors are non-food type. The confidential information submitted by the suppliers is kept confidential under FIFRA Section 10.

5. In the proposed labeling, provide the following information:

- ☐ a) Update the label Storage and Pesticide and Container Disposal Statements in accordance with ☐ PR Notice 84-1 for non-aerosol containers for houses and institutional uses or ☐ PR Notice 83-3 for all other uses.
- ☐ b) Add the heading PHYSICAL OR CHEMICAL HAZARDS to the label and the appropriate statement per 40 CFR 156.10(h)(2)(iii).
- ☐ c) Under the heading PHYSICAL OR CHEMICAL HAZARDS, list the product as Extremely Flammable (because your product contains flammable propellents).
- ☐ d) Provided that the solvent does not have insecticidal activity, it should be removed from the ingredient statement active ingredient listing and the percentage added to the inert ingredients. If the solvent has insecticidal properties, provide the EPA Registration Number.
- ☐ e) Add a footnote to the inert ingredients indicating: Contains aromatic petroleum distillates, xylene or xylene-range aromatic solvent.
- ☐ f) Since your data matrix does not provide a dielectrical breakdown voltage, you must add the following statement to the Physical or Chemical Hazards heading:

Do not use this product in or on electrical equipment  
due to the possibility of shock hazard.

✓ Stability - request for waiver is granted since this is an EP & requirement is only for TGA1

~~✓ Flammability - is N/A since this is a solid, & does not contain any? combustible liquid~~

~~✓ pH - Waiver is granted since this is N/A because it's a solid?~~

✓ Miscibility - Waiver is granted since this is applicable for only emulsifiable liquids, when diluted with oils, though this is a liquid but not diluted with oil.

✓ Oct/Water Partition Co-efficient Data - is not required for end use products so waiver is granted.

✓ Vapor Pressure - Waiver for V.P. is granted & is only required for the technicals.

✓ Discussion of Formation of Impurities - Waiver for this is also granted, since the same is required only of a Technical active ingredient.

✓ Solubility - Request for waiver is granted since this applies to TGA1 only.

✓ Boiling Point - Waiver is granted since this is an EP

✓ Melting Point - Waiver is granted " " " " " "

✓ Analysis of Samples - " " " " " " " " " "

**Zoecon Corporation**

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

1 July 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

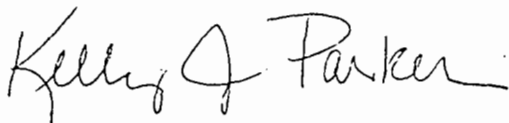
RE: Request for a Waiver of Melting Point  
All Products Listed in the RED  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon Corporation respectfully requests a waiver of melting point,  
Guideline 151B-17(d), for all products subject to the Methoprene  
Reregistration Eligibility Decision document (see attached).

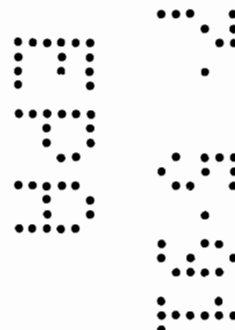
This requirement is only applicable for technical grade active ingredients  
that are solid at room temperature. Methoprene is a liquid at room  
temperature; therefore, this requirement does not apply to any product  
contained in the Methoprene RED.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286 - Product Specific  
ID# 2724-RD-7

Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352 - Product Specific ID# 2724-RD-25

Kabat Tobacco Protector, EPA Reg. No. 2724-377 - Product Specific ID# 2724-RD-34

Kabat Tobacco Protector Concentrate, EPA Reg. No. 2724-384 - Product Specific ID# 2724-RD-36

Altosid Liquid Larvicide, EPA Reg. No. 2724-392 - Product Specific ID# 2724-RD-41

Altosid Larvicide Concentrate, EPA Reg. No. 2724-393 - Product Specific ID# 2724-RD-42

Zoecon RF-299 RTU Carpet Pump Spray, EPA Reg. No. 2724-401 - Product Specific ID# 2724-RD-44

Zoecon RF-322 Ovicidal Pump Spray, EPA Reg. No. 2724-404 - Product Specific ID# 2724-RD-46

Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420 - Product Specific ID# 2724-RD-48

Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427 - Product Specific ID# 2724-RD-50

Methoprene, EPA Reg. No. 2724-441 - Product Specific ID# 2724-RD-56

(S)-Methoprene Technical, EPA Reg. No. 2724-442 - Product Specific ID# 2724-RD-51

Zoecon RF-379 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446 - Product Specific  
ID# 2724-RD-439

Zoecon RF-274 Fogger, EPA Reg. No. 2724-337 - Product Specific ID# 2724-RD-22

Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338 - Product Specific ID# 2724-RD-23

Zoecon RF-280 Aerosol, EPA Reg. No. 2724-339 - Product Specific ID# 2724-RD-24

Zoecon RF-293 Methoprene Bolus, EPA Reg. No. 2724-356 - Product Specific ID# 2724-RD-26

Zoecon RF-297 Aerosol, EPA Reg. No. 2724-360 - Product Specific ID# 2724-RD-27

ALTOSID CP-10, EPA Reg. No. 2724-367 - Product Specific ID# 2724-RD-28

Starbar Block IGR Cattle Supplement, EPA Reg. No. 2724-368 - Product Specific  
ID# 2724-RD-29

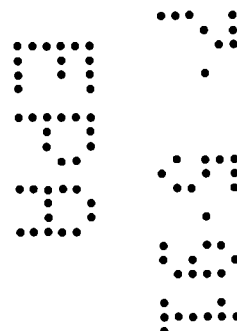
Granular IGR Cattle Supplement, EPA Reg. No. 2724-372 - Product Specific ID# 2724-RD-30

Block IGR Cattle Supplement, EPA Reg. No. 2724-373 - Product Specific ID# 2724-RD-31

ALTOSID Briquets, EPA Reg. No. 2724-375 - Product Specific ID# 2724-RD-33

Zoecon RF-292 Briquet, EPA Reg. No. 2724-421 - Product Specific ID# 2724-RD-49

Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52



**Zoecon Corporation**

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

1 July 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

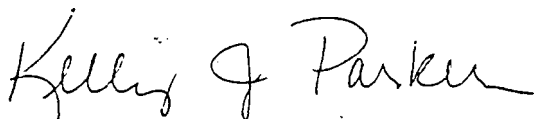
RE: Request for a Waiver of Stability  
All Products Listed in the RED  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon Corporation respectfully requests a waiver of stability, Guideline 151B-17(j), for all products subject to the Methoprene Reregistration Eligibility Decision document (see attached).

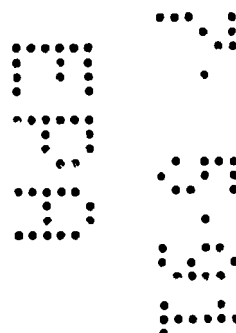
This requirement is only applicable for technical grade active ingredients. The stability of Methoprene can be found in MRID Number 00010927. All other products are end-products and manufacturing-products; therefore, this requirement does not apply to any product contained in the Methoprene RED.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286 - Product Specific ID# 2724-RD-7

Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352 - Product Specific ID# 2724-RD-25

Kabat Tobacco Protector, EPA Reg. No. 2724-377 - Product Specific ID# 2724-RD-34

Kabat Tobacco Protector Concentrate, EPA Reg. No. 2724-384 - Product Specific ID# 2724-RD-36

Altosid Liquid Larvicide, EPA Reg. No. 2724-392 - Product Specific ID# 2724-RD-41

Altosid Larvicide Concentrate, EPA Reg. No. 2724-393 - Product Specific ID# 2724-RD-42

Zoecon RF-299 RTU Carpet Pump Spray, EPA Reg. No. 2724-401 - Product Specific ID# 2724-RD-44

Zoecon RF-322 Ovicidal Pump Spray, EPA Reg. No. 2724-404 - Product Specific ID# 2724-RD-46

Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420 - Product Specific ID# 2724-RD-48

Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427 - Product Specific ID# 2724-RD-50

Zoecon RF-379 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446 - Product Specific ID# 2724-RD-439

Zoecon RF-274 Fogger, EPA Reg. No. 2724-337 - Product Specific ID# 2724-RD-22

Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338 - Product Specific ID# 2724-RD-23

Zoecon RF-280 Aerosol, EPA Reg. No. 2724-339 - Product Specific ID# 2724-RD-24

Zoecon RF-293 Methoprene Bolus, EPA Reg. No. 2724-356 - Product Specific ID# 2724-RD-26

Zoecon RF-297 Aerosol, EPA Reg. No. 2724-360 - Product Specific ID# 2724-RD-27

ALTOSID CP-10, EPA Reg. No. 2724-367 - Product Specific ID# 2724-RD-28

Starbar Block IGR Cattle Supplement, EPA Reg. No. 2724-368 - Product Specific ID# 2724-RD-29

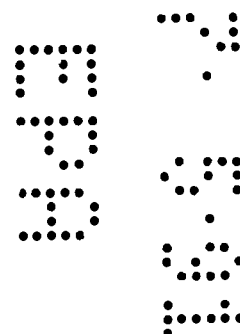
Granular IGR Cattle Supplement, EPA Reg. No. 2724-372 - Product Specific ID# 2724-RD-30

Block IGR Cattle Supplement, EPA Reg. No. 2724-373 - Product Specific ID# 2724-RD-31

ALTOSID Briquets, EPA Reg. No. 2724-375 - Product Specific ID# 2724-RD-33

Zoecon RF-292 Briquet, EPA Reg. No. 2724-421 - Product Specific ID# 2724-RD-49

Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52



**Zoecon Corporation**

*A SANDOZ Company*

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

1 July 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Request for a Waiver of Solubility  
All Products Listed in the RED  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon Corporation respectfully requests a waiver of solubility, Guideline 151B-17(g), for all products subject to the Methoprene Reregistration Eligibility Decision document--(see attached).

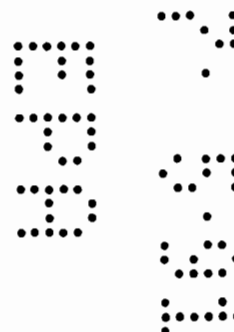
This requirement is only applicable for technical grade active ingredients. The solubility of Methoprene can be found in MRID Number 00010927. All other products are end-products and manufacturing-products; therefore, this requirement does not apply to any other product contained in the Methoprene RED.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286 - Product Specific ID# 2724-RD-7

Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352 - Product Specific ID# 2724-RD-25

Kabat Tobacco Protector, EPA Reg. No. 2724-377 - Product Specific ID# 2724-RD-34

Kabat Tobacco Protector Concentrate, EPA Reg. No. 2724-384 - Product Specific ID# 2724-RD-36

Altosid Liquid Larvicide, EPA Reg. No. 2724-392 - Product Specific ID# 2724-RD-41

Altosid Larvicide Concentrate, EPA Reg. No. 2724-393 - Product Specific ID# 2724-RD-42

Zoecon RF-299 RTU Carpet Pump Spray, EPA Reg. No. 2724-401 - Product Specific ID# 2724-RD-44

Zoecon RF-322 Ovicidal Pump Spray, EPA Reg. No. 2724-404 - Product Specific ID# 2724-RD-46

Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420 - Product Specific ID# 2724-RD-48

Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427 - Product Specific ID# 2724-RD-50

Zoecon RF-379 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446 - Product Specific ID# 2724-RD-439

Zoecon RF-274 Fogger, EPA Reg. No. 2724-337 - Product Specific ID# 2724-RD-22

Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338 - Product Specific ID# 2724-RD-23

Zoecon RF-280 Aerosol, EPA Reg. No. 2724-339 - Product Specific ID# 2724-RD-24

Zoecon RF-293 Methoprene Bolus, EPA Reg. No. 2724-356 - Product Specific ID# 2724-RD-26

Zoecon RF-297 Aerosol, EPA Reg. No. 2724-360 - Product Specific ID# 2724-RD-27

ALTOSID CP-10, EPA Reg. No. 2724-367 - Product Specific ID# 2724-RD-28

Starbar Block IGR Cattle Supplement, EPA Reg. No. 2724-368 - Product Specific ID# 2724-RD-29

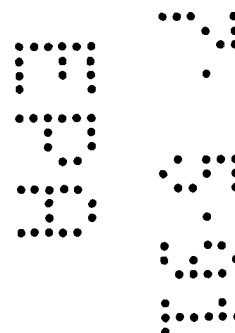
Granular IGR Cattle Supplement, EPA Reg. No. 2724-372 - Product Specific ID# 2724-RD-30

Block IGR Cattle Supplement, EPA Reg. No. 2724-373 - Product Specific ID# 2724-RD-31

ALTOSID Briquets, EPA Reg. No. 2724-375 - Product Specific ID# 2724-RD-33

Zoecon RF-292 Briquet, EPA Reg. No. 2724-421 - Product Specific ID# 2724-RD-49

Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52



**Zoecon Corporation**

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

20 May 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Request for an Extension of Storage Stability Data  
Guideline 151B-17(l)  
Product Specific ID# 2724-RD-25  
EPA Reg. No. 2724-352

Dear Mr. Nelson:

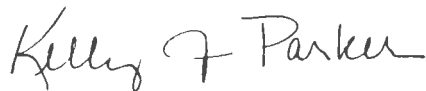
Zoecon Corporation respectfully requests an extension for submission of storage stability data for the subject product. We would like to submit a final report for this study in November 1992.

According to FIFRA as amended in 1988, there is no legislated timeframe for submission of product specific data for List A products (although Lists B, C, and D are subject to the 8 month rule); therefore, the length of our requested extension should pose no regulatory problem. For storage stability studies, EPA currently requires 3 lots, 3 temperatures, and 1 year's worth of GLP data. In the best of circumstances, this is unachievable within 8 months.

According to 40 CFR § 160.29(c), "There shall be a sufficient number of personnel for the timely and proper conduct of the study according to the protocol." Considering all of the GLP storage stability studies required by the Methoprene RED, Zoecon would need to hire 50 more people to conduct the studies, as well as the inherent need to build more stability storage space. I've been told by management that these are not viable options. We have come up with a schedule that would allow Zoecon to comply with the RED by conducting the stability studies in shifts. This will also allow Zoecon to remain in compliance with § 160.29(c) and allow us to use available storage space.

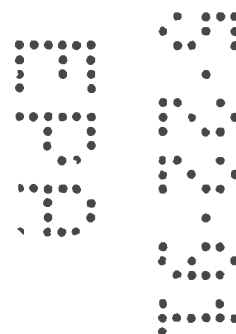
Please let me know as soon as possible whether our request for an extension has been granted.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Karen Samek, SRRD, EPA



**Zoecon Corporation**

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

20 May 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Request for an Extension of Storage Stability Data  
Guideline 151B-17(I)  
Product Specific ID# 2724-RD-50  
EPA Reg. No. 2724-427

Dear Mr. Nelson:

Zoecon Corporation respectfully requests an extension for submission of storage stability data for the subject product. We would like to submit a final report for this study in November 1992.

According to FIFRA as amended in 1988, there is no legislated timeframe for submission of product specific data for List A products (although Lists B, C, and D are subject to the 8 month rule); therefore, the length of our requested extension should pose no regulatory problem. For storage stability studies, EPA currently requires 3 lots, 3 temperatures, and 1 year's worth of GLP data. In the best of circumstances, this is unachievable within 8 months.

According to 40 CFR § 160.29(c), 'There shall be a sufficient number of personnel for the timely and proper conduct of the study according to the protocol.' Considering all of the GLP storage stability studies required by the Methoprene RED, Zoecon would need to hire 50 more people to conduct the studies, as well as the inherent need to build more stability storage space. I've been told by management that these are not viable options. We have come up with a schedule that would allow Zoecon to comply with the RED by conducting the stability studies in shifts. This will also allow Zoecon to remain in compliance with § 160.29(c) and allow us to use available storage space.

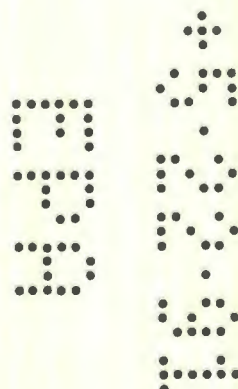
Please let me know as soon as possible whether our request for an extension has been granted.

Best regards,

*Kelly J. Parker*

Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Karen Samek, SRRD, EPA



**Zoecon Corporation**

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1 July 1991

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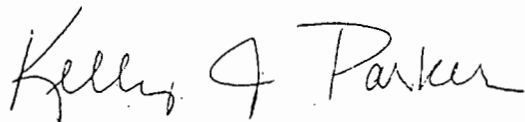
RE: Request for a Waiver of Miscibility  
All Products Listed in the RED  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon Corporation respectfully requests a waiver of miscibility, Guideline 151B-17(n), for all products subject to the Methoprene Reregistration Eligibility Decision document (see attached).

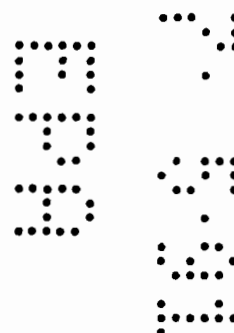
This requirement is only applicable for emulsifiable liquids intended to be diluted with petroleum solvents. Although we do have emulsifiable liquids, they are not diluted with petroleum solvents; therefore, this requirement does not apply to any product contained in the Methoprene RED.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286 - Product Specific  
ID# 2724-RD-7

Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352 - Product Specific ID# 2724-RD-25

Kabat Tobacco Protector, EPA Reg. No. 2724-377 - Product Specific ID# 2724-RD-34

Kabat Tobacco Protector Concentrate, EPA Reg. No. 2724-384 - Product Specific ID# 2724-RD-36

Altosid Liquid Larvicide, EPA Reg. No. 2724-392 - Product Specific ID# 2724-RD-41

Altosid Larvicide Concentrate, EPA Reg. No. 2724-393 - Product Specific ID# 2724-RD-42

Zoecon RF-299 RTU Carpet Pump Spray, EPA Reg. No. 2724-401 - Product Specific ID# 2724-RD-44

Zoecon RF-322 Ovicidal Pump Spray, EPA Reg. No. 2724-404 - Product Specific ID# 2724-RD-46

Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420 - Product Specific ID# 2724-RD-48

Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427 - Product Specific ID# 2724-RD-50

Methoprene, EPA Reg. No. 2724-441 - Product Specific ID# 2724-RD-56

(S)-Methoprene Technical, EPA Reg. No. 2724-442 - Product Specific ID# 2724-RD-51

Zoecon RF-379 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446 - Product Specific

ID# 2724-RD-439

Zoecon RF-274 Fogger, EPA Reg. No. 2724-337 - Product Specific ID# 2724-RD-22

Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338 - Product Specific ID# 2724-RD-23

Zoecon RF-280 Aerosol, EPA Reg. No. 2724-339 - Product Specific ID# 2724-RD-24

Zoecon RF-293 Methoprene Bolus, EPA Reg. No. 2724-356 - Product Specific ID# 2724-RD-26

Zoecon RF-297 Aerosol, EPA Reg. No. 2724-360 - Product Specific ID# 2724-RD-27

ALTOSID CP-10, EPA Reg. No. 2724-367 - Product Specific ID# 2724-RD-28

Starbar Block IGR Cattle Supplement, EPA Reg. No. 2724-368 - Product Specific

ID# 2724-RD-29

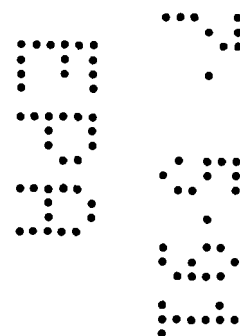
Granular IGR Cattle Supplement, EPA Reg. No. 2724-372 - Product Specific ID# 2724-RD-30

Block IGR Cattle Supplement, EPA Reg. No. 2724-373 - Product Specific ID# 2724-RD-31

ALTOSID Briquets, EPA Reg. No. 2724-375 - Product Specific ID# 2724-RD-33

Zoecon RF-292 Briquet, EPA Reg. No. 2724-421 - Product Specific ID# 2724-RD-49

Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52



**Zoecon Corporation**

*A SANDOZ Company*

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

1 July 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

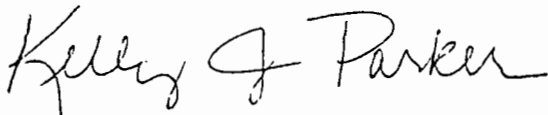
RE: Request for a Waiver of Oct/Water Partition Coefficient Data  
All End-Use Products Listed in the RED  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon respectfully requests a waiver of Octanol/Water Partition Coefficient Data, Guideline Number 151B-17(p) for all end-use products subject to the Methoprene Reregistration Eligibility Decision document (see attached).

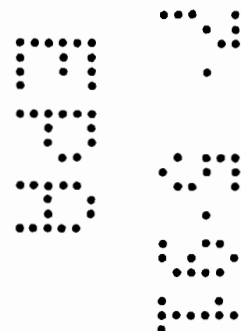
We understand that this requirement was part of the generic data requirement for the technical grade active ingredient. Data are being generated on the active ingredient and will be submitted by the April 1992 deadline. All other products are end-products and manufacturing-products; therefore, this requirement does not apply to any other product contained in the Methoprene RED.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286 - Product Specific

ID# 2724-RD-7

Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352 - Product Specific ID# 2724-RD-25

Kabat Tobacco Protector, EPA Reg. No. 2724-377 - Product Specific ID# 2724-RD-34

Kabat Tobacco Protector Concentrate, EPA Reg. No. 2724-384 - Product Specific ID# 2724-RD-36

Altosid Liquid Larvicide, EPA Reg. No. 2724-392 - Product Specific ID# 2724-RD-41

Altosid Larvicide Concentrate, EPA Reg. No. 2724-393 - Product Specific ID# 2724-RD-42

Zoecon RF-299 RTU Carpet Pump Spray, EPA Reg. No. 2724-401 - Product Specific ID# 2724-RD-44

Zoecon RF-322 Ovicidal Pump Spray, EPA Reg. No. 2724-404 - Product Specific ID# 2724-RD-46

Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420 - Product Specific ID# 2724-RD-48

Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427 - Product Specific ID# 2724-RD-50

Zoecon RF-379 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446 - Product Specific

ID# 2724-RD-439

Zoecon RF-274 Fogger, EPA Reg. No. 2724-337 - Product Specific ID# 2724-RD-22

Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338 - Product Specific ID# 2724-RD-23

Zoecon RF-280 Aerosol, EPA Reg. No. 2724-339 - Product Specific ID# 2724-RD-24

Zoecon RF-293 Methoprene Bolus, EPA Reg. No. 2724-356 - Product Specific ID# 2724-RD-26

Zoecon RF-297 Aerosol, EPA Reg. No. 2724-360 - Product Specific ID# 2724-RD-27

ALTOSID CP-10, EPA Reg. No. 2724-367 - Product Specific ID# 2724-RD-28

Starbar Block IGR Cattle Supplement, EPA Reg. No. 2724-368 - Product Specific

ID# 2724-RD-29

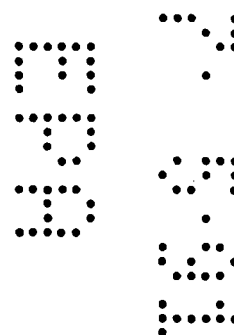
Granular IGR Cattle Supplement, EPA Reg. No. 2724-372 - Product Specific ID# 2724-RD-30

Block IGR Cattle Supplement, EPA Reg. No. 2724-373 - Product Specific ID# 2724-RD-31

ALTOSID Briquets, EPA Reg. No. 2724-375 - Product Specific ID# 2724-RD-33

Zoecon RF-292 Briquet, EPA Reg. No. 2724-421 - Product Specific ID# 2724-RD-49

Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52



**Zoecon Corporation**

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

1 July 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

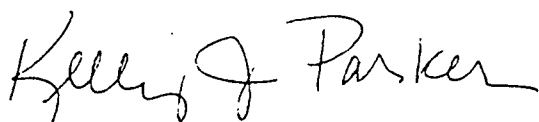
RE: Request for a Waiver of Boiling Point  
All Products Listed in the RED  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon Corporation respectfully requests a waiver of boiling point, Guideline 151B-17(e), for all products subject to the Methoprene Reregistration Eligibility Decision document (see attached).

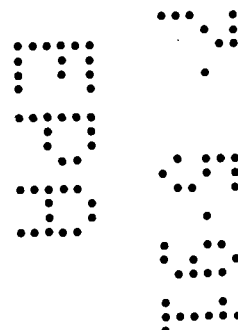
This requirement is only applicable for technical grade active ingredients that are liquid at room temperature. The boiling point for Methoprene can be found in MRID Number 00010927. All other products are end-products and manufacturing-products; therefore, this requirement does not apply to any other product contained in the Methoprene RED.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286 - Product Specific ID# 2724-RD-7

Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352 - Product Specific ID# 2724-RD-25

Kabat Tobacco Protector, EPA Reg. No. 2724-377 - Product Specific ID# 2724-RD-34

Kabat Tobacco Protector Concentrate, EPA Reg. No. 2724-384 - Product Specific ID# 2724-RD-36

Altosid Liquid Larvicide, EPA Reg. No. 2724-392 - Product Specific ID# 2724-RD-41

Altosid Larvicide Concentrate, EPA Reg. No. 2724-393 - Product Specific ID# 2724-RD-42

Zoecon RF-299 RTU Carpet Pump Spray, EPA Reg. No. 2724-401 - Product Specific ID# 2724-RD-44

Zoecon RF-322 Ovicidal Pump Spray, EPA Reg. No. 2724-404 - Product Specific ID# 2724-RD-46

Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420 - Product Specific ID# 2724-RD-48

Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427 - Product Specific ID# 2724-RD-50

Zoecon RF-379 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446 - Product Specific ID# 2724-RD-439

Zoecon RF-274 Fogger, EPA Reg. No. 2724-337 - Product Specific ID# 2724-RD-22

Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338 - Product Specific ID# 2724-RD-23

Zoecon RF-280 Aerosol, EPA Reg. No. 2724-339 - Product Specific ID# 2724-RD-24

Zoecon RF-293 Methoprene Bolus, EPA Reg. No. 2724-356 - Product Specific ID# 2724-RD-26

Zoecon RF-297 Aerosol, EPA Reg. No. 2724-360 - Product Specific ID# 2724-RD-27

ALTOSID CP-10, EPA Reg. No. 2724-367 - Product Specific ID# 2724-RD-28

Starbar Block IGR Cattle Supplement, EPA Reg. No. 2724-368 - Product Specific ID# 2724-RD-29

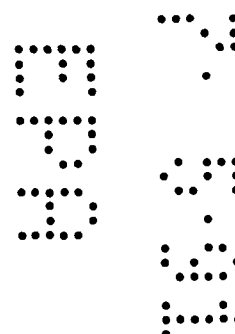
Granular IGR Cattle Supplement, EPA Reg. No. 2724-372 - Product Specific ID# 2724-RD-30

Block IGR Cattle Supplement, EPA Reg. No. 2724-373 - Product Specific ID# 2724-RD-31

ALTOSID Briquets, EPA Reg. No. 2724-375 - Product Specific ID# 2724-RD-33

Zoecon RF-292 Briquet, EPA Reg. No. 2724-421 - Product Specific ID# 2724-RD-49

Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52



**Zoecon Corporation**

*A SANDOZ Company*

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

1 July 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

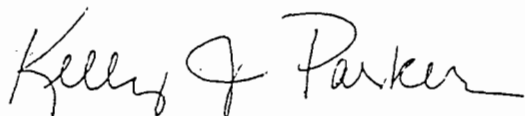
RE: Request for a Waiver of Vapor Pressure  
All Products Listed in the RED  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon Corporation respectfully requests a waiver of vapor pressure  
Guideline 151B-17(h), for all products subject to the Methoprene  
Reregistration Eligibility Decision document (see attached).

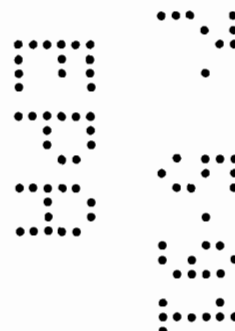
This requirement is only applicable for active ingredients. The vapor pressure for Methoprene can be found in MRID Number 00010927. All other products are end-products and manufacturing-products; therefore, this requirement does not apply to any other product contained in the Methoprene RED.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286 - Product Specific  
ID# 2724-RD-7

Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352 - Product Specific ID# 2724-RD-25

Kabat Tobacco Protector, EPA Reg. No. 2724-377 - Product Specific ID# 2724-RD-34

Kabat Tobacco Protector Concentrate, EPA Reg. No. 2724-384 - Product Specific ID# 2724-RD-36

Altosid Liquid Larvicide, EPA Reg. No. 2724-392 - Product Specific ID# 2724-RD-41

Altosid Larvicide Concentrate, EPA Reg. No. 2724-393 - Product Specific ID# 2724-RD-42

Zoecon RF-299 RTU Carpet Pump Spray, EPA Reg. No. 2724-401 - Product Specific ID# 2724-RD-44

Zoecon RF-322 Ovicidal Pump Spray, EPA Reg. No. 2724-404 - Product Specific ID# 2724-RD-46

Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420 - Product Specific ID# 2724-RD-48

Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427 - Product Specific ID# 2724-RD-50

Zoecon RF-379 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446 - Product Specific  
ID# 2724-RD-439

Zoecon RF-274 Fogger, EPA Reg. No. 2724-337 - Product Specific ID# 2724-RD-22

Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338 - Product Specific ID# 2724-RD-23

Zoecon RF-280 Aerosol, EPA Reg. No. 2724-339 - Product Specific ID# 2724-RD-24

Zoecon RF-293 Methoprene Bolus, EPA Reg. No. 2724-356 - Product Specific ID# 2724-RD-26

Zoecon RF-297 Aerosol, EPA Reg. No. 2724-360 - Product Specific ID# 2724-RD-27

ALTOSID CP-10, EPA Reg. No. 2724-367 - Product Specific ID# 2724-RD-28

Starbar Block IGR Cattle Supplement, EPA Reg. No. 2724-368 - Product Specific  
ID# 2724-RD-29

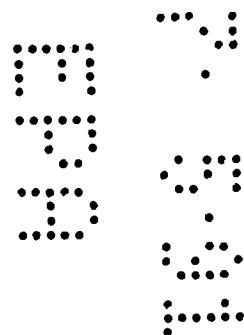
Granular IGR Cattle Supplement, EPA Reg. No. 2724-372 - Product Specific ID# 2724-RD-30

Block IGR Cattle Supplement, EPA Reg. No. 2724-373 - Product Specific ID# 2724-RD-31

ALTOSID Briquets, EPA Reg. No. 2724-375 - Product Specific ID# 2724-RD-33

Zoecon RF-292 Briquet, EPA Reg. No. 2724-421 - Product Specific ID# 2724-RD-49

Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52





# EPA

United States Environmental Protection Agency  
Washington, D.C. 20460

## REQUIREMENTS STATUS AND REGISTRANTS RESPONSE

Form Approved

OMB No. 2070-0107

Approval Expires 12-31-92

INSTRUCTIONS: Please type or print in ink. Please read carefully the attached instructions and supply the information requested on this form. Use additional sheet(s) if necessary.

1. Company name and Address <b>ZOECON CORPORATION-A SANDOZ CO. 12200 DENTON DRIVE DALLAS, TX. 75234</b>			2. Case # and Name <b>0030 Methoprene</b> Chemical # and Name <b>105401 Methoprene</b> EPA Reg. No. <b>2724-427</b>			3. Date and Type of DCI <b>PRODUCT SPECIFIC</b> ID# <b>2724-RD-50</b> <b>MAR 21 1991</b>			
4. Guideline Requirement Number	5. Study Title	PROTOCOL	Progress Reports			6. Use Pattern	7. Test Substance	8. Time Frame	9. Registrant Response
			1 YR	2 YRS	3 YRS				
151B-10	Product Identity					ALL	EP	8 mos.	1
151B-11	Manufacturing Process					ALL	EP	8 mos.	1
141B-12	Discussion of Impurities					ALL	EP	8 mos.	7
151B-13	Analysis of Samples					ALL	EP	8 mos.	7
151B-15	Certification of limits					ALL	EP	8 mos.	1
151B-16	Analytical method					ALL	EP	8 mos.	1
151B-17(a)	Color					ALL	EP	8 mos.	1
151B-17(b)	Physical state					ALL	EP	8 mos.	1
151B-17(c)	Odor					ALL	EP	8 mos.	1
151B-17(d)	Melting point					ALL	EP	8 mos.	7
151B-17(e)	Boiling point					ALL	EP	8 mos.	7
151B-17(f)	Density					ALL	EP	8 mos.	1
151B-17(g)	Solubility					ALL	EP	8 mos.	7
151B-17(h)	Vapor pressure					ALL	EP	8 mos.	7
151B-17(i)	pH					ALL	EP	8 mos.	1
151B-17(j)	Stability					ALL	EP	8 mos.	7
151B-17(k)	Flammability					ALL	EP	8 mos.	1
151B-17(l)	Storage stability					ALL	EP	8 mos.	1*
10. Certification I certify that the statements that I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. Signature and Title of Company's Authorized Representative <u>Kelly J. Parker</u> Regulatory Specialist							11. Date  1 July 1991		
12. Name of Company Contact  Kelly J. Parker							13. Phone Number 214/888-8726		

\*Correspondence Attached



# EPA

United States Environmental Protection Agency  
Washington, D.C. 20460

## REQUIREMENTS STATUS AND REGISTRANTS RESPONSE

Form Approved

OMB No. 2070-0107

Approval Expires 12-31-92

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1. Company name and Address <b>ZOECON CORPORATION-A SANDOZ CO. 12200 DENTON DRIVE DALLAS, TX. 75234</b>		2. Case # and Name <b>0030 Methoprene</b> Chemical # and Name <b>105401 Methoprene</b> EPA Reg. No. <b>2724-427</b>			3. Date and Type of DCI <b>PRODUCT SPECIFIC</b> <b>ID# 2724-RD-50</b> <b>MAR 21 1991</b>				
4. Guideline Requirement Number	5. Study Title	PROTOCOL	Progress Reports			6. Use Pattern	7. Test Substance	8. Time Frame	9. Registrant Response
			1 yr	2 yrs	3 yrs				
151B-17(m)	Viscosity					ALL	EP	8 mos.	1
151B-17(n)	Miscibility					ALL	EP	8 mos.	7
151B-17(o)	Corrosion characteristics					ALL	EP	8 mos.	1*
151B-17(p)	Oct/Water partition coef.					ALL	EP	8 mos.	7
152B-10	Acute oral toxicity					ALL	EP	8 mos.	4
152B-11	Acute dermal toxicity					ALL	EP	8 mos.	4
152B-12	Acute inhal. toxicity					ALL	EP	8 mos.	1*
152B-13	Primary eye irritation					ALL	EP	8 mos.	4
152B-14	Primary dermal irritation					ALL	EP	8 mos.	4
152B-15	Dermal sensitization					ALL	EP	8 mos.	4
152B-16	Hypersensitivity incidents					ALL	EP	8 mos.	1
95-10(b)(1)	Prod. Perf. for mosquitoes (cesspools, septic tanks, and waste treatment settling ponds)					Applicable sites	EP	8 mos.	7

Initial to indicate certification as to information on this page  
(full text of certification is on page one)

KP

Date

7/1/91

Zoecon Corporation

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

20 May 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Request for an Extension of Storage Stability Data  
Guideline 151B-17(I)  
Product Specific ID# 2724-RD-50  
EPA Reg. No. 2724-427

Dear Mr. Nelson:

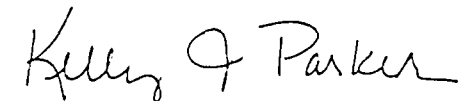
Zoecon Corporation respectfully requests an extension for submission of storage stability data for the subject product. We would like to submit a final report for this study in November 1992.

According to FIFRA as amended in 1988, there is no legislated timeframe for submission of product specific data for List A products (although Lists B, C, and D are subject to the 8 month rule); therefore, the length of our requested extension should pose no regulatory problem. For storage stability studies, EPA currently requires 3 lots, 3 temperatures, and 1 year's worth of GLP data. In the best of circumstances, this is unachievable within 8 months.

According to 40 CFR § 160.29(c), "There shall be a sufficient number of personnel for the timely and proper conduct of the study according to the protocol." Considering all of the GLP storage stability studies required by the Methoprene RED, Zoecon would need to hire 50 more people to conduct the studies, as well as the inherent need to build more stability storage space. I've been told by management that these are not viable options. We have come up with a schedule that would allow Zoecon to comply with the RED by conducting the stability studies in shifts. This will also allow Zoecon to remain in compliance with § 160.29(c) and allow us to use available storage space.

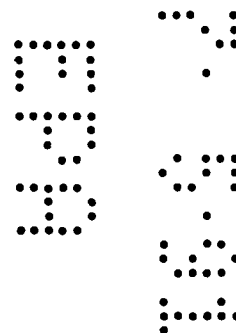
Please let me know as soon as possible whether our request for an extension has been granted.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Karen Samek, SRRD, EPA



**Zoecon Corporation**

A SANDOZ Company

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

1 July 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
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1921 Jefferson Davis Highway  
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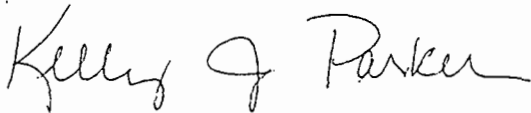
RE: Correspondence for Storage Stability and Corrosion Characteristics  
All Products Listed in the RED  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon Corporation conducts these studies together; therefore, the attached requests for extension of submitting storage stability data also apply to the corrosion characteristics portion of the study. We apologize for any inconvenience this oversight may have caused.

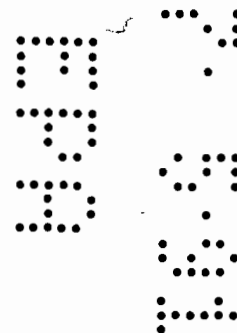
These requests are resubmitted here because we haven't received a response from EPA.

Best regards,



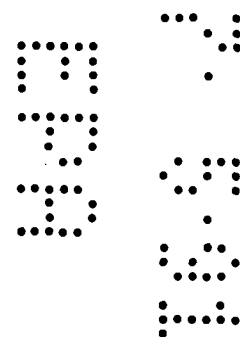
Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352 - Product Specific ID# 2724-RD-25  
Kabat Tobacco Protector, EPA Reg. No. 2724-377 - Product Specific ID# 2724-RD-34  
Kabat Tobacco Protector Concentrate, EPA Reg. No. 2724-384 - Product Specific ID# 2724-RD-36  
Altosid Larvicide Concentrate, EPA Reg. No. 2724-393 - Product Specific ID# 2724-RD-42  
Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420 - Product Specific ID# 2724-RD-48  
Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427 - Product Specific ID# 2724-RD-50  
Zoecon RF-379 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446 - Product Specific  
ID# 2724-RD-439  
Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338 - Product Specific ID# 2724-RD-23  
ALTOSID CP-10, EPA Reg. No. 2724-367 - Product Specific ID# 2724-RD-28  
Starbar Block IGR Cattle Supplement, EPA Reg. No. 2724-368 - Product Specific  
ID# 2724-RD-29  
Granular IGR Cattle Supplement, EPA Reg. No. 2724-372 - Product Specific ID# 2724-RD-30  
Block IGR Cattle Supplement, EPA Reg. No. 2724-373 - Product Specific ID# 2724-RD-31  
ALTOSID Briquets, EPA Reg. No. 2724-375 - Product Specific ID# 2724-RD-33  
Zoecon RF-292 Briquet, EPA Reg. No. 2724-421 - Product Specific ID# 2724-RD-49  
Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52



**Zoecon Corporation**

*A SANDOZ Company*

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

1 July 1991

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
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Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

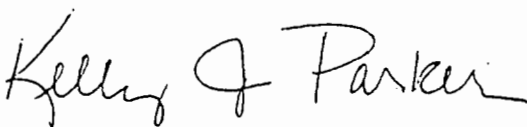
RE: Request for a Waiver of Analysis of Samples  
All End-Products and Manufacturing-Products Listed in the RED  
Case Number and Name: 0030 Methoprene

Dear Mr. Nelson:

Zoecon Corporation respectfully requests a waiver of the analysis of samples, Guideline 151B-13, for all end-products and manufacturing-products subject to the Methoprene Reregistration Eligibility Decision document (see attached).

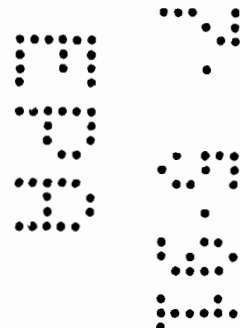
These products are not technical active ingredients and they are not produced by an integrated system; therefore, this requirement is not applicable.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286 - Product Specific  
ID# 2724-RD-7

Zoecon RF-291 Emulsifiable Concentrate, EPA Reg. No. 2724-352 - Product Specific ID# 2724-RD-25

Kabat Tobacco Protector, EPA Reg. No. 2724-377 - Product Specific ID# 2724-RD-34

Kabat Tobacco Protector Concentrate, EPA Reg. No. 2724-384 - Product Specific ID# 2724-RD-36

Altosid Liquid Larvicide, EPA Reg. No. 2724-392 - Product Specific ID# 2724-RD-41

Altosid Larvicide Concentrate, EPA Reg. No. 2724-393 - Product Specific ID# 2724-RD-42

Zoecon RF-299 RTU Carpet Pump Spray, EPA Reg. No. 2724-401 - Product Specific ID# 2724-RD-44

Zoecon RF-322 Ovicidal Pump Spray, EPA Reg. No. 2724-404 - Product Specific ID# 2724-RD-46

Zoecon RF-329 Ant Growth Regulator, EPA Reg. No. 2724-420 - Product Specific ID# 2724-RD-48

Zoecon RF-342 Emulsifiable Concentrate, EPA Reg. No. 2724-427 - Product Specific ID# 2724-RD-50

Zoecon RF-379 Mosquito Growth Regulator SR-20, EPA Reg. No. 2724-446 - Product Specific  
ID# 2724-RD-439

Zoecon RF-274 Fogger, EPA Reg. No. 2724-337 - Product Specific ID# 2724-RD-22

Zoecon RF-275 Pressurized Spray, EPA Reg. No. 2724-338 - Product Specific ID# 2724-RD-23

Zoecon RF-280 Aerosol, EPA Reg. No. 2724-339 - Product Specific ID# 2724-RD-24

Zoecon RF-293 Methoprene Bolus, EPA Reg. No. 2724-356 - Product Specific ID# 2724-RD-26

Zoecon RF-297 Aerosol, EPA Reg. No. 2724-360 - Product Specific ID# 2724-RD-27

ALTOSID CP-10, EPA Reg. No. 2724-367 - Product Specific ID# 2724-RD-28

Starbar Block IGR Cattle Supplement, EPA Reg. No. 2724-368 - Product Specific

ID# 2724-RD-29

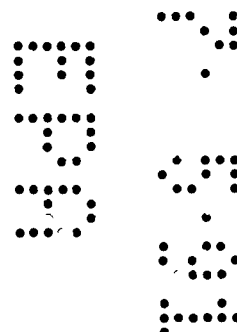
Granular IGR Cattle Supplement, EPA Reg. No. 2724-372 - Product Specific ID# 2724-RD-30

Block IGR Cattle Supplement, EPA Reg. No. 2724-373 - Product Specific ID# 2724-RD-31

ALTOSID Briquets, EPA Reg. No. 2724-375 - Product Specific ID# 2724-RD-33

Zoecon RF-292 Briquet, EPA Reg. No. 2724-421 - Product Specific ID# 2724-RD-49

Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52



**Zoecon Corporation**

A SANDOZ Company

1 July 1991

12200 Denton Drive, Dallas, Texas 75234, (214) 243-2321

Mr. Willie Nelson  
Product Management Team 18  
U.S. Environmental Protection Agency  
Document Processing Desk (RED/RD-0030)  
Office of Pesticide Programs (H7504C)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Request for a Waiver of Discussion of Formation of Impurities  
All End-Products and Manufacturing-Products Listed in the RED  
Case Number and Name: 0030 Methoprene

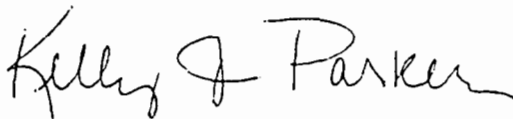
Dear Mr. Nelson:

Zoecon Corporation respectfully requests a waiver of the discussion of Impurities, Guideline 151B-12, for all end-products and manufacturing-products subject to the Methoprene Reregistration Eligibility Decision document (see attached).

These products are not technical active ingredients and they are not produced by an integrated system. The manufacturing and use history of these products show no reactions between the product and the packaging or between ingredients in the product. We've seen no reactions occurring between the product and the production equipment. These products do not contain impurities of toxicological concern such as N-nitrosamines, hexachlorobenzene, polychlorinated or polybrominated dibenzo-p-dioxins or -furans.

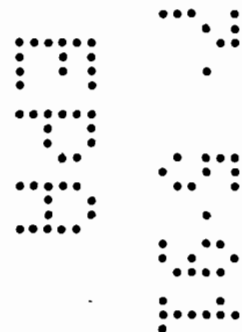
According to EPA, "end-use products are typically mixtures having no reactions occurring." This is a true statement in the case of Methoprene-containing products. The chemists' time would be better spent generating product-specific product chemistry due by November, rather than theorizing about the possibilities of impurities. Therefore, we request this waiver.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512

CC: Phil Hutton, RD, EPA  
Dick King, SRRD, EPA



## Products

Zoecon RF-174 Flea Growth Regulator, EPA Reg. No. 2724-286 - Product Specific  
ID# 2724-RD-7

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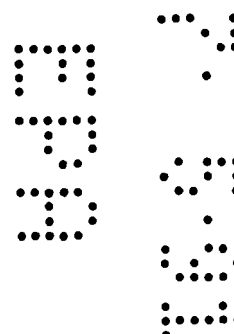
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Zoecon RF-330 ALTOSID Pellets, EPA Reg. No. 2724-448 - Product Specific ID# 2724-RD-52



PM # - 17

REG # - 2724-427

DATA ANALYST - Jim Hinkle

DATE PROCESSED - 1/18/91

THIS JACKET HAS BEEN FOUND TO BE DEFICIENT BY SIG FOR THE FOLLOWING REASONS:

1. CURRENT ACCEPTED LABEL NOT STAMPED
2. CURRENT LABEL MISSING
3. CURRENT CSF MISSING
4. ACTIVE AND INERTS DO NOT = 100%
5. ADDITIONAL BRAND NAME (NO CODING REQ'D)
6. CURRENT INFORMATION ON FILE IS CORRECT (NO CHG REQ'D)
7. CSF/LABEL/JACKET INFO. IS INCONSISTENT
8. SAME REG-NR ASSIGNED TO 2 PMS OR PRODUCTS
9. REG-NR IS OR NEEDS TO BE CANCELLED AND/OR TRANSFERRED
10. IN CSF, REG-NR IS CANCELLED - NEED NEW REG. NR. FOR -
11. SITE/PEST INFO. MISSING FROM LABEL
12. RETURNED UNPROCESSED PER PM TEAM MEMBER REQUEST
13. NO SIGNAL WORD
14. NO ACTIVE/INERT PERCENTAGES ON LABEL
- ⑬. OTHER - IN CSF, REG # FOR ACTIVE CHEMICAL CANNOT  
BE DETERMINED AS CURRENTLY ACCEPTED, TRANSFERRED OR  
CANCELLED. UNABLE TO DETERMINE CHEMICAL COMPOSITION OF  
55947-109

PLEASE RESUBMIT THE ABOVE JACKET/S WHEN THE ABOVE DEFICIENCY/CIES  
HAVE BEEN CORRECTED TO:

SIG  
ROOM 263  
557 - 1176

~~YOUR COOPERATION IN RESOLVING THE DEFICIENCY/CIES IS GREATLY~~  
APPRECIATED.

UNITED STATES ENVIRONMENTAL PROTECTION

5387832 17  
300  
DEC 19 1989

Kelly Parker  
Zoecon Corporation  
A Sandoz Co.  
12005 Ford Road, Suite 800  
LB 44  
Dallas, Texas 75234-7296

Subject: Zoecon RF-342 Emulsifiable Concentrate  
EPA Reg No. 2724-427  
Your label submission dated December 13, 1989.

Dear Ms. Parker:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

Sincerely,

*PHM* Phil Hutton  
Product Manager (17)  
Insecticide/Rodenticide Branch  
Registration Division (H7505C)

Enclosure

CONCURRENCES

SYMBOL							
SURNAME	<i>Bagley</i>						
DATE	<i>12-14-90</i>						

ACCEPTED

DEC 19 1990

Under the Federal Insecticide, Fungicide, and  
Rodenticide Act, as amended, for the  
pesticide registered under  
EPA Reg. No. 2724-427

# ZOECON RF-342 EMULSIFIABLE CONCENTRATE FOR TOBACCO

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
Storage Facilities

## ACTIVE INGREDIENTS:

(S)-Methoprene [Isopropyl (2E, 4E, 7S)-  
11-methoxy-3, 7, 11-trimethyl-2, 4-  
dodecadienoate].....

32.8%

INERT INGREDIENTS:.....

67.2%

TOTAL..... 100.0%

This product contains 2.5 lb/gallon (300 grams/liter)  
(S)-methoprene active ingredient.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Back Panel for Additional Precautionary Statements.

NET CONTENTS:

**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricornis*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**ENVIRONMENTAL HAZARDS:** Do not contaminate water when disposing of equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

**Application with Cold Aerosol Generators:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1,000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

**STORAGE & DISPOSAL:** **Storage** - Store in a cool, dry place. **Pesticide Disposal** - Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal** - [Metal Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. [Plastic Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. [Glass Containers]: Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

## WARRANTY AND CONDITIONS OF SALE

Zoecon Corporation warrants that this product conforms to the chemical description on the label and is useful for the control of insect pests as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied.

Zoecon Corporation  
A Sandoz Company

10 Denton Drive, Dallas, Texas 75234

EPA Reg. No. 2724- 427  
U.S. Patents 3,904,662 & 3,912,815  
1189B:0150E

276  
EPA Est. 55947-CA-1  
Made in USA  
c 1988 Zoecon

ACCEPTED

DEC 19 1990

Under FIFRA, Insecticides, Fungicides, and  
Herbicides Act, as amended, for the  
registration under  
FIFRA No. 2724-427

# ZOECON RF-342 EMULSIFIABLE CONCENTRATE FOR TOBACCO

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
Storage Facilities

## ACTIVE INGREDIENTS:

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32.8%

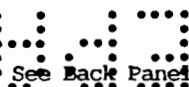
INERT INGREDIENTS:..... 67.2%

TOTAL..... 100.0%

This product contains 2.5 lb/gallon (300 grams/liter)  
(S)-methoprene active ingredient.

KEEP OUT OF REACH OF CHILDREN.

CAUTION



See Back Panel for Additional Precautionary Statements.

NET CONTENTS :

**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

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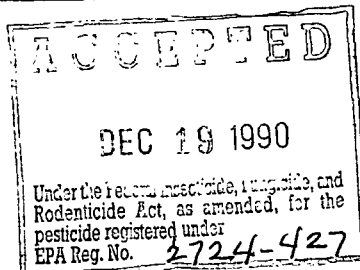
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A Sandoz Company  
100 Denton Drive, Dallas, Texas 75234

EPA Reg. No. 2724- 427  
U.S. Patents 3,904,662 & 3,912,815  
1189B:0150E

277  
EPA Est. 55947-CA-1  
Made in USA  
© 1988 Zoecon



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Insect Pests in Tobacco Processing and  
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278  
EPA Est. 55947-CA-1  
Made in USA  
c 1988 Zoecon



United States Environmental Protection Agency  
Office of Pesticide Programs (TS-767)  
Washington, DC 20460

OPP Identifier Number

132867

Application for Pesticide: ☐ Registration  
☐ Amendment

## Section I

1. Company/Product Number 2724-427 (URT) 2. Date 13 Dec 1989 3. Product Manager Phil Hutton/17 4. Proposed Classification ☐ General ☐ Restricted

5. Name and Address of Applicant (Include ZIP Code)

Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive  
Dallas, Texas 75234

☐ Check if this is a new address

6. Product Name

Zoecon RF-342 Emulsifiable Concentrate

## Section II - Amendment Information

1. Subject ☐ Resubmission in response to Agency letter ☒ Final printed label in response to Agency letter ☐ Other (explain below) Date of Letter 12/6/89

## Section III

1. Material This Product Will Be Packaged In 2. Type of Container  
Child-Resistant Packaging Unit Packaging Water-Soluble Packaging ☒ Metal  
☐ Yes ☒ No ☐ Yes ☒ No ☒ Plastic  
If "Yes," If "Yes," ☒ Glass  
Unit package wgt No. per container Package weight No. per container ☐ Paper  
Other (Specify)  
3. Location of Net Contents Information 4. Size(s) of Retail Container  
☒ Label ☐ Container 1 oz. - 128 oz.  
5. Location of Label Directions 6. Manner in Which Label Is Affixed To Product  
☒ On Label ☐ Other (Specify)  
☐ On material accompanying product ☒ Lithograph ☒ Paper glued ☒ Stenciled

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

Name

Kelly J. Parker

Title

Regulatory Specialist

Telephone No. (Include Area Code)

214/888-8726

6. Date Application Received (Stamped)

Certification  
I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature

3. Title

Regulatory Specialist

4. Typed Name

Kelly J. Parker

5. Date Signed

13 Dec. 1989

# Paperwork Reduction Act Notice and Instructions

## Paperwork Reduction Act Notice

Public reporting burden for this collection of information is estimated to average of 0.85 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## Instructions

### General

This form is to be used for all applications for new and amended registrations for pesticide products.

In order to process an application for new registration submitted on this form, the following material must accompany the application:

1. Offer to Pay Statement (EPA Form 8570-22, -23, or -24). (If not exempted by 40 CFR 162.9-1(b).)
2. Confidential Statement of Formula (EPA Form 8570-4).
3. Five copies of draft labeling.
4. Three copies of any data submitted.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8 1/2 x 11 inch paper or as a mockup of the proposed label. If prepared as a mockup it should be constructed in such a way as to facilitate storage in an 8 1/2 x 11 inch file. Mockup labels significantly smaller than 8 1/2 x 11 inches should be mounted on 8 1/2 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

### Specific

Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, Section I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**Section I** - This Section must be completed for both Registration and Amended Registration actions.

1. **Company/Product Number** - Insert your company number, if one has been assigned. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If application is for an amendment, insert the registration number of the product.
2. **Date** - Fill in the appropriate date.
3. **Product Manager** - If known, fill in the name and number of the Product Manager.
4. **Proposed Classification** - Specify the proposed classification for this product.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters.

EPA Form 8570-1 (Rev. 9-88)

An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

6. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

### Amendment Information

**Section II** - This Section must be completed for all applications submitted in connection with Amended Registration.

1. **Subject of Amendment** - Check the appropriate block, and provide a brief explanation of the purpose(s) for the amendment, such as: "the addition of a site, pest, or crop"; "to change inert ingredient"; "general label revisions of precautionary statements," etc.

### Packaging and Container Information

**Section III** - This Section must be completed for all applications submitted in connection with New Registration.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Specify the net contents of all retail containers for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicate the method product labeling is attached to retail container.

### Contact Point

**Section IV** - This Section must be completed for all Registration and Amended Registration applications.

- 1-5. Self-explanatory.
6. EPA Use Only.



**SYSTEMS INTEGRATION GROUP, INC.**

DATE: 2/28/90  
TO: PRODUCT MANAGER 17  
FROM: SYSTEMS INTEGRATION GROUP, INC.

THE FOLLOWING REGISTRATION JACKETS ARE RETURNED FOR CHEMICAL  
INGREDIENT IDENTIFICATION. PLEASE REFER TO THE "REQUEST FOR  
CHEMICAL NAME REVIEW" FORM ATTACHED TO EACH JACKET.

REG. # 2724-427  
REG. # \_\_\_\_\_  
REG. # \_\_\_\_\_  
REG. # \_\_\_\_\_  
REG. # \_\_\_\_\_  
REG. # \_\_\_\_\_  
REG. # \_\_\_\_\_

## APPENDIX A

## REQUEST FOR CHEMICAL NAME REVIEW

Request date 2/28/70  
Receipt date \_\_\_\_\_  
Return date: \_\_\_\_\_  
Requestor N.B.  
PMSD 17

Please type or print clearly the following:

Requestor Neta

Org. SIG (TS-7 ) Room 263 Phone 557-4462  
(Div./Br./Sect.)

Name of Chemical \_\_\_\_\_

Synonym(s)

1.

(Include trade names, co./research names, etc.)

2.

3.

Codes:

CAS \_\_\_\_\_

Caswell \_\_\_\_\_

Other (specify) \_\_\_\_\_

Description:

Product Name Zoclon RF-342 Emulsifiable Concentrate

Product Type \_\_\_\_\_

(Use, i.e., insecticide, herbicide, disinfectant, etc.)

Registrant Zoclon Corporation

Reg. No./File Symbol 2724-427

☐ Active ingredient

☒ Inert ingredient

☐ Other (specify)

Shaughnessy code \_\_\_\_\_

cc: Requestor

PM (new active ingredients only)

PMSD

255,780 / 300  
17

DEC 06

DEC 06 1989

Kelly Parker  
Zoecon Corporation  
A Sandoz Company  
12005 Ford Road, Suite 800, LB 44  
Dallas, TX 75234-7296

Subject: Zoecon RP-342 emulsifiable Concentrate  
EPA Registration No. 2724-427  
Changes in the DIRECTIONS FOR USE portion of the  
label as per our discussion on November 21, 1989.


Dear Kelly:

The labeling changes that we discussed on November 21, 1989 made in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable. The following DIRECTIONS FOR USE label statements will be removed because they would not be achievable in tobacco processing plants:

"Cover or remove any tobacco or tobacco processing equipment during application. After spraying wash all equipment, benches, shelving, etc., where tobacco will be handled with an effective cleaning compound followed by a potable water rinse."

Submit five (5) copies of the final printed labeling.

Sincerely,

  
Phil Hutton  
Product Manager 17  
Insecticide/Rodenticide Branch  
Registration Division (H7505C)

CONCURRENCES

SYMBOL								
SURNAME	Bagley							
DATE	11-27-89							

Phil,

Kelly called 11-21-89 & indicated that ~~the~~ some of the Direction for Use statements were impractical/impossible for tobacco proc. plants. Also that you had discussed it w/ Richard Fresh & the tobacco folks back this summer - so I took the statement requirements out - Please advise. <sup>Thanks</sup>

<p style="text-align: center;">US ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (TS-767) WASHINGTON, DC 20460</p> <p><b>NOTICE OF PESTICIDE:</b> <input type="checkbox"/> REGISTRATION                                   <input type="checkbox"/> REREISTRATION (Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">EPA REGISTRATION NO. <div style="text-align: center;">2724-427</div></td> <td style="width: 50%;">DATE OF ISSUANCE</td> </tr> <tr> <td colspan="2">TERM OF ISSUANCE</td> </tr> <tr> <td colspan="2">NAME OF PESTICIDE PRODUCT <div style="text-align: center;">Zoecon RF-342 Emulsifiable Concentrate</div></td> </tr> </table>	EPA REGISTRATION NO. <div style="text-align: center;">2724-427</div>	DATE OF ISSUANCE	TERM OF ISSUANCE		NAME OF PESTICIDE PRODUCT <div style="text-align: center;">Zoecon RF-342 Emulsifiable Concentrate</div>	
EPA REGISTRATION NO. <div style="text-align: center;">2724-427</div>	DATE OF ISSUANCE						
TERM OF ISSUANCE							
NAME OF PESTICIDE PRODUCT <div style="text-align: center;">Zoecon RF-342 Emulsifiable Concentrate</div>							
<p>NAME AND ADDRESS OF REGISTRANT (Include ZIP code)</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 60%;"> <p style="margin-top: 20px;">Zoecon Corporation A Sandoz Company 12005 Ford Road, Suite 800, LB 44 Dallas, TX 75234-7296</p> </div> <div style="width: 35%; text-align: right;"> <p>255062 / 18</p> <p>345 224223 / 18</p> <p>175</p> <p>25503 / 18</p> <p>161</p> </div> </div>							
<p><b>NOTE:</b> Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.</p> <p>On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.</p> <p>A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.</p> <p>Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:</p> <ol style="list-style-type: none"> <li>1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.</li> <li>2. Make the labeling changes listed below before you release the product for shipment:             <ol style="list-style-type: none"> <li>a. Add the phrase "EPA Registration No. 2724-427."</li> <li>b. Add the following statements to the DIRECTIONS FOR USE portion of the label:                 <div style="margin-left: 40px; border: 1px solid black; padding: 5px; width: fit-content;"> <p>Do not apply directly to tobacco being processed. Cover or remove any tobacco or tobacco processing equipment during application. After spraying, wash all equipment, benches, shelving, etc., where tobacco will be handled with an effective cleaning compound followed by a potable water rinse."</p> </div> </li> </ol> </li> </ol>							
<p><input type="checkbox"/> ATTACHMENT IS APPLICABLE</p>							
<p>SIGNATURE OF APPROVING OFFICIAL <div style="text-align: center;">See P. 2</div></p>	<p>DATE <div style="text-align: center;">11/15/89</div></p>						

- c. The following statement must be added to the label after the HAZARDS TO HUMANS AND DOMESTIC ANIMALS portion of the label:

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters.

- d. You must add the following statement to the use directions:

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

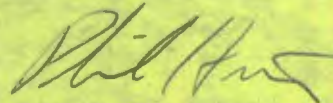
This statement must be included until your submission of test data indicates that the product is safe to use near or on electrical equipment.

3. Include data on the corrosive characteristics of the product when you submit the rest of the storage stability data.

4. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.



Phil Hutton  
Product Manager (17)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)

Enclosures



U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDE PROGRAM (TS-767)  
WASHINGTON, D.C. 20460

## APPLICATION FOR PESTICIDE:

☐ REGISTRATION  
☒ AMENDMENT

A

Please read instructions  
on reverse before com-  
pleting.

## SECTION I

1. COMPANY/PRODUCT NO. 2724-UET	2. DATE August 4, 1989	3. PRODUCT MANAGER Phil Hutton/17	4. PROPOSED CLASSIFICATION <input checked="" type="checkbox"/> GENERAL <input type="checkbox"/> RESTRICTED
------------------------------------	---------------------------	--------------------------------------	--

5. NAME AND ADDRESS OF APPLICANT (Include ZIP Code)

Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive  
Dallas, Texas 75234

☐ CHECK IF THIS IS A NEW ADDRESS

6. PRODUCT NAME

Zoecon RF-342 Emulsifiable Concentrate

## SECTION II

1. SUBJECT OF AMENDMENT

☐ RESUBMISSION IN RESPONSE TO AGENCY LETTER DATED \_\_\_\_\_

☐ FINAL PRINTED LABEL IN RESPONSE TO AGENCY LETTER DATED \_\_\_\_\_

☒ OTHER (explain below)

Expedited review of an amendment which only proposes to split-off a "secondary" label & Labelling from a previously submitted "primary" label.

## SECTION III

1. WILL THIS PRODUCT BE PACKAGED IN:

CHILD-RESISTANT PACKAGING ☐ YES ☒ NO

UNIT PACKAGING ☐ YES ☒ NO

If YES, unit pkg. wt. \_\_\_\_\_ No. per container \_\_\_\_\_

WATER-SOLUBLE PACKAGING ☐ YES ☒ NO

If YES, pkg. wt. \_\_\_\_\_ No. per container \_\_\_\_\_

2. TYPE OF CONTAINER

☒ METAL  
☒ PLASTIC  
☒ GLASS  
☐ PAPER  
☐ OTHER (Specify)

3. LOCATION OF NET CONTENTS

☒ LABEL ☐ CONTAINER

4. SIZE(S) OF RETAIL CONTAINER

1 oz. - 128 oz.

5. LOCATION OF LABEL DIRECTIONS

☒ ON LABEL

☐ ON MATERIAL ACCOMPANYING PRODUCT

6. MANNER IN WHICH LABEL IS AFFIXED TO PRODUCT

☒ LITHOGRAPH ☐ OTHER (Specify)  
☒ PAPER GLUED  
☒ STENCILED

## SECTION IV

1. CONTACT POINT (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).

NAME

Richard W. Fresh

TITLE

Manager, Regulatory Affairs

TELEPHONE NO. (Include Area Code)

214/888-8453

2. SIGNATURE

3. TITLE

Manager, Regulatory Affairs

4. TYPED NAME

Richard W. Fresh

5. DATE SIGNED

8/4/89

6. DATE APPLICATION RECEIVED (Stamped)

# ZOECON RF-342

## EMULSIFIABLE CONCENTRATE FOR TOBACCO

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
Storage Facilities

### ACTIVE INGREDIENTS:

(S)-Methoprene [Isopropyl(2E,4E,7S)-  
11-methoxy-3,7,11-trimethyl-2,4-  
dodecadienoate].....

32.8%

INERT INGREDIENTS:..... 67.2%  
TOTAL..... 100.0%

This product contains 2.5 lb/gallon (300 grams/liter)  
(S)-methoprene active ingredient.

KEEP OUT OF REACH OF CHILDREN  
ACCEPTED  
WITH COMMENTS  
in EPA Letter Dated:

CAUTION

NOV 17 1989

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide  
registered under EPA Reg. No.  
2724-427

See Back Panel for Additional Precautionary Statements.

NET CONTENTS:

INTRODUCTION: Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

### PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION: Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

PHYSICAL OR CHEMICAL HAZARDS: Do not use or store near heat or open flame.

DIRECTIONS FOR USE: It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Application with Cold Aerosol Generators: Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1,000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

Application as an Aqueous Spray: Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

Mixing Instructions: Partially fill the mixing container with water, add Zoecon RF-342, and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

### STORAGE & DISPOSAL:

Storage - Store in a cool, dry place. Pesticide Disposal - Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. Container Disposal - [Metal Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. [Plastic Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. [Glass Containers]: Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

### WARRANTY AND CONDITIONS OF SALE

Zoecon Corporation warrants that this product conforms to the chemical description on the label and is useful for the control of insect pests as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied.

Zoecon Corporation  
A Sandoz Company

12200 Denton Drive, Dallas, Texas 75234

EPA Reg. No. 2724-  
U.S. Patents 3,904,662 & 3,912,815  
0789A:0150E

EPA Est. 55947-CA-1  
Made in USA  
c 288 Zoecon

# ZOECON RF-342

## EMULSIFIABLE CONCENTRATE FOR TOBACCO

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
Storage Facilities

### ACTIVE INGREDIENTS:

(S)-Methoprene [Isopropyl(2E,4E,7S)-  
11-methoxy-3,7,11-trimethyl-2,4-  
dodecadienoate].....

INERT INGREDIENTS:.....  
TOTAL..... 100.0%

This product contains 2.5 lb/gallon (300 grams/liter)  
(S)-methoprene active ingredient.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Back Panel for Additional Precautionary Statements.

NET CONTENTS:

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

NOV 17 1989

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide  
registered under EPA Reg. No.

2724-

4127

INTRODUCTION: Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

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Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

### PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION: Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

PHYSICAL OR CHEMICAL HAZARDS: Do not use or store near heat or open flame.

DIRECTIONS FOR USE: It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Application with Cold Aerosol Generators: Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1,000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

Application as an Aqueous Spray: Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

Mixing Instructions: Partially fill the mixing container with water, add Zoecon RF-342, and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

### STORAGE & DISPOSAL:

Storage - Store in a cool, dry place. Pesticide Disposal - Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. Container Disposal - [Metal Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. [Plastic Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. [Glass Containers]: Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

### WARRANTY AND CONDITIONS OF SALE

Zoecon Corporation warrants that this product conforms to the chemical description on the label and is useful for the control of insect pests as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied.

Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive, Dallas, Texas 75234

EPA Reg. No. 2724-  
U.S. Patents 3,904,662 & 3,912,815  
0789A:0150E

EPA Est. 55947-CA-1  
Made in USA  
c 289 Zoecon

# ZOECON RF-342

## EMULSIFIABLE CONCENTRATE FOR TOBACCO

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
Storage Facilities

### ACTIVE INGREDIENTS:

(S)-Methoprene [Isopropyl(2E,4E,7S)- 11-methoxy-3,7,11-trimethyl-2,4- dodecadienoate].....	32.8%
INERT INGREDIENTS:.....	67.2%
TOTAL.....	100.0%

This product contains 2.5 lb/gallon (300 grams/liter)  
(S)-methoprene active ingredient.

**KEEP OUT OF REACH OF CHILDREN**  
ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

**CAUTION**

NOV 17 1989

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide  
registered under EPA Reg. No.

2724-427

See Back Panel for Additional Precautionary Statements.

**NET CONTENTS:**

**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in cold aerosol generators and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

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**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**Application with Cold Aerosol Generators:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1,000 square feet of surface area. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

### STORAGE & DISPOSAL:

**Storage -** Store in a cool, dry place. **Pesticide Disposal -** Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal - [Metal Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. **[Plastic Containers]:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[Glass Containers]:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

### WARRANTY AND CONDITIONS OF SALE

Zoecon Corporation warrants that this product conforms to the chemical description on the label and is useful for the control of insect pests as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied.

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A Sandoz Company  
12200 Denton Drive, Dallas, Texas 75234

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EPA Est. 55947-CA-1  
Made in USA  
c 1989 Zoecon

**Zoecon Corporation**

A SANDOZ Company

12005 Ford Road, Suite 800, LB 44, Dallas, Texas 75234-7296

(214) 243-2321

August 4, 1989

Mr. Phil Hutton  
Product Manager (17)  
Insecticide-Rodenticide Branch  
Office of Pesticide Programs  
Document Processing Desk (AMEND)  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Hwy.  
Arlington, VA 22202

RE: Zoecon RF-342 Emulsifiable Concentrate  
EPA File Symbol 2724-UET  
A Secondary Label Split From the Master Label

Dear Mr. Hutton:

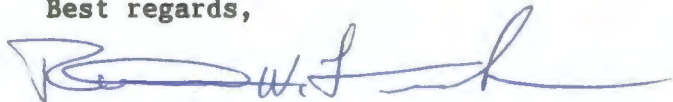
Thank you for meeting with us on August 1, 1989. Both you and Mr. Nelson were very helpful.

Based on the meeting, Zoecon Corporation is proposing to amend the label of Zoecon RF-342 Emulsifiable Concentrate (2724-UET). The amendment would provide for a secondary tobacco-use-only label split-off from the master label which contains both tobacco and food handling establishment directions. The proposed tobacco-use-only label deletes all references to food handling establishments or directions for use in food handling establishments.

I have included 5 copies of the proposed label.

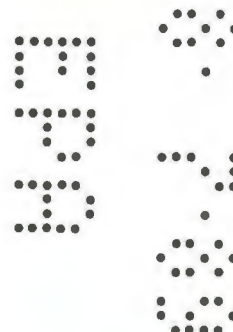
If you have questions on this amendment, please call me at 214/888-8453.

Best regards,



Richard W. Fresh  
Manager, Regulatory Affairs

RWF:sw  
Enclosures





RF  
Sent by Fax  
Sat

ZOECON CORPORATION  
12005 FORD ROAD, SUITE 800  
DALLAS, TEXAS 75234

UNATTENDED FAX #: 214/243-5613  
MAIN PHONE #: 214/243-2321  
TELEX #: 730775 ZOEDAL

DATE: October 27, 1989

TO: Phil Hutton #: 703/557-3106

LOCATION: EPA

FROM: Richard Fresh

NUMBER OF PAGES: 1 + COVER

Subject: Status of 2724-UET  
ZOECON RF-342 Emulsifiable Concentrate

Phil:

On Aug. 1 of this year representatives of Philip Morris and Zoecon met with you to discuss a tobacco only label for the subject product. At that time I was told that the procedure would be to send in an amendment with the required modified label. The amendment would be administrative on your Team's part and would follow under the expedited review system (max. 90 day turn around).

I sent the amendment into the Agency on Aug. 7, 1989. In my discussions with you on Oct. 11, 1989 you mentioned that there was some type of "mailroom snafu" according to your file book and that you would have to pull the jacket to see what the problem was. My questions to you are:

1. What is the problem?
2. What do we have to do, if anything to resolve it?
3. Since this supposedly was an expedited review, can Zoecon address the problem with you and get the product out of limbo and to the tobacco growers before the middle of November as we were told?

Thanks for your help.

Best regards,  
RWF

27

**Zoecon Corporation**

A SANDOZ Company

12005 Ford Road, Suite 800, LB 44, Dallas, Texas 75234-7296  
(214) 243-2321

August 15, 1989

Mr. Phil Hutton  
Product Manager (17)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)  
U.S. Environmental Protection Agency  
Crystal Mall, Bldg. 2  
1921 Jefferson Davis Hwy.  
Arlington, VA 22202

RE: Zoecon RF-342 Emulsifiable Concentrate

Dear Phil:

Enclosed in the Confidential Attachment is a material safety data sheet for (Cross Reference 1). The supplier of the ingredient will provide the chemical identity directly to you in reference to our file. Since this product is a mixture of several inerts, it does not have a specific CAS number assigned to it.

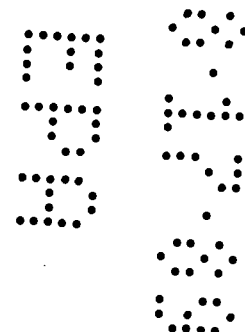
The supplier of (Cross Reference 2) has provided EPA with an authorization letter to reference their file at EPA (copy enclosed). The XF(ZS) formula does not contain xylene - the "XF" stands for xylene-free - and it is cleared for food use. The "(ZS)" stands for Zoecon Standard. Like (Cross Reference 1), this product is a mixture of several inerts and does not have a specific CAS number. I've requested a material safety data sheet. I'll forward a copy to you as soon as I receive it.

The dielectric breakdown voltage for the product is 39.2 KV. The final report for the test is being written and can be supplied to you as a condition of the registration.

Best regards,

Richard W. Fresh  
Manager, Regulatory Affairs

RWF:sw



## ZOECON RF-342 EMULSIFIABLE CONCENTRATE

## CONFIDENTIAL ATTACHMENTS

CROSS REFERENCE NUMBER 1

THIS CROSS REFERENCE NUMBER NOTED  
IN THE LETTER DATED 15 AUGUST 1989  
IS USED IN PLACE OF THE FOLLOWING  
WORDS. INFORMATION REGARDING THE  
DELETED WORDS ARE ATTACHED  
IMMEDIATELY BEHIND THIS PAGE.

DELETED WORD(S): [REDACTED]

<u>VOLUME</u>	<u>PAGE(S)</u>	<u>REASON FOR DELETION</u>	<u>FIFRA REFERENCE</u>
--	--	Identity of Inert Ingredient	10(d)(1)(C)

CROSS REFERENCE NUMBER 2

THIS CROSS REFERENCE NUMBER NOTED  
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9538



**Zoecon Corporation**

A SANDOZ Company

12005 Ford Road, Suite 800, LB 44, Dallas, Texas 75234-7296  
(214) 243-2321

August 15, 1989

Mr. Phil Hutton  
Product Manager (17)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)  
U.S. Environmental Protection Agency  
Crystal Mall, Bldg. 2  
1921 Jefferson Davis Hwy.  
Arlington, VA 22202

RE: Zoecon RF-342 Emulsifiable Concentrate

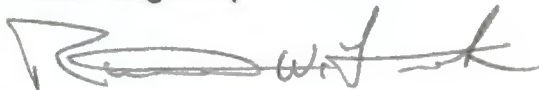
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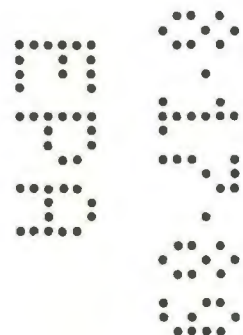
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Best regards,



Richard W. Fresh  
Manager, Regulatory Affairs

RWF:sw



**Zoecon Corporation**

A SANDOZ Company

12005 Ford Road, Suite 800, LB 44, Dallas, Texas 75234-7296  
(214) 243-2321

August 15, 1989

Mr. Phil Hutton  
Product Manager (17)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)  
U.S. Environmental Protection Agency  
Crystal Mall, Bldg. 2  
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Richard W. Fresh  
Manager, Regulatory Affairs

RWF:sw

353

CONFIDENTIAL ATTACHMENTS

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11/11/2016

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**Zoecon Corporation**

A SANDOZ Company

12005 Ford Road, Suite 800, LB 44, Dallas, Texas 75234-7296  
(214) 243-2321

August 15, 1989

Mr. Phil Hutton  
Product Manager (17)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)  
U.S. Environmental Protection Agency  
Crystal Mall, Bldg. 2  
1921 Jefferson Davis Hwy.  
Arlington, VA 22202

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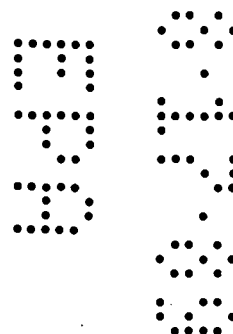
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Best regards,

Richard W. Fresh  
Manager, Regulatory Affairs

RWF:sw



## ZOECON RF-342 EMULSIFIABLE CONCENTRATE

## CONFIDENTIAL ATTACHMENTS

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312



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

10-1-89

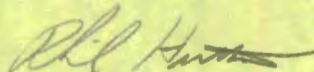
Ms. Kelly Parker  
Zoecon Corporation - A Sandoz Company  
12005 Ford Road, Suite 800  
LB 44  
Dallas, TX 75234-7296

Dear Ms. Parker:

Subject: Zoecon RF-342 IC  
EPA File Symbol 2724-UET  
Your Letter Dated September 12, 1989 Withdrawing  
Food Additive Petition No. 9H5588

The tolerance petition for food additive uses referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, has been withdrawn at your request. The file will be kept active for nonfood uses.

Sincerely yours,



Phil Hutton  
Product Manager (17)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)

50583:I:Bagley:LH-7:KENCO:09/20/89:10/02/89:DD:sw:vo:ek:de

CONCURRENCES

SYMBOL								
SURNAME								
DATE								

Note to PCB - Keep jacket &  
review the 2 submissions from Pat Q

---

- Phil - this <sup>tolerance</sup> 15 closed-out  
on the computer

---

Tobacco was to be kept active for  
methoprene (note the same review went to Kelly for  
Hydroprene - But Zocco is keeping petition active for Hydroprene

**Zoecon Corporation**

A SANDOZ Company

12005 Ford Road, Suite 800, LB 44, Dallas, Texas 75234-7296

(214) 243-2321

12 September 1989

Mr. Phil Hutton  
Product Manager 17  
U.S. Environmental Protection Agency  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)  
Document Processing Desk (CAN/WD)  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

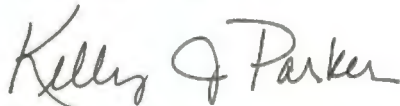
RE: Zoecon RF-342 Emulsifiable Concentrate  
EPA File Symbol 2724-UET  
Withdraw Food Additive Petition and  
Response to EPA Letter Dated 24 August 1989

Dear Mr. Hutton:

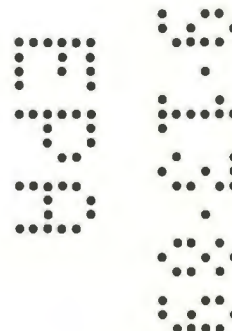
We would like to withdraw food additive petition number 9H5588. However, we would like to keep the file active for non-food uses. Please consider the label submitted by Richard Fresh on 4 August 1989 to be the current basic label. This product will be used as an insect growth regulator for the control of insect pests in tobacco processing and storage facilities.

Your letter of 24 August 1989 was a combination of two jackets -- RF-342 Emulsifiable Concentrate (containing methoprene) and RF-209 Cockroach Growth Regulator (containing hydroprene). Because we had received a draft copy of your letter in June, we responded in a letter dated 15 August 1989. The only outstanding question was regarding corrosion characteristics data. We will submit corrosion characteristics data as a condition of registration.

Best regards,



Kelly J. Parker  
Regulatory Specialist  
800/527-0512





U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDE PROGRAM (TS-767)  
WASHINGTON, D.C. 20460

## APPLICATION FOR PESTICIDE:

☐ REGISTRATION  
☐ AMENDMENT

Please read instructions  
on reverse before com-  
pleting.

## SECTION I

1. COMPANY/PRODUCT NO. 2724-UET	2. DATE September 12, 1989	3. PRODUCT MANAGER Phil Hutton/17	4. PROPOSED CLASSIFICATION <input checked="" type="checkbox"/> GENERAL <input type="checkbox"/> RESTRICTED
5. NAME AND ADDRESS OF APPLICANT (Include ZIP Code)  Zoecon Corporation A Sandoz Company 12200 Denton Drive Dallas, Texas 75234  <input type="checkbox"/> CHECK IF THIS IS A NEW ADDRESS			
6. PRODUCT NAME Zoecon RF-342 Emulsifiable Concentrate			

## SECTION II

1. SUBJECT OF AMENDMENT  <input checked="" type="checkbox"/> RESUBMISSION IN RESPONSE TO AGENCY LETTER DATED 8/24/89 <input type="checkbox"/> FINAL PRINTED LABEL IN RESPONSE TO AGENCY LETTER DATED _____ <input checked="" type="checkbox"/> OTHER (explain below)  Withdraw Food Additive Petition
---

## SECTION III

1. WILL THIS PRODUCT BE PACKAGED IN:  CHILD-RESISTANT PACKAGING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO  UNIT PACKAGING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If YES, unit pkg. wt. _____ No. per container _____  WATER-SOLUBLE PACKAGING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If YES, pkg. wt. _____ No. per container _____	2. TYPE OF CONTAINER  <input checked="" type="checkbox"/> METAL <input checked="" type="checkbox"/> PLASTIC <input checked="" type="checkbox"/> GLASS <input type="checkbox"/> PAPER <input type="checkbox"/> OTHER (Specify)
3. LOCATION OF NET CONTENTS <input checked="" type="checkbox"/> LABEL <input type="checkbox"/> CONTAINER	4. SIZE(S) OF RETAIL CONTAINER 1 oz. - 128 oz.
5. LOCATION OF LABEL DIRECTIONS <input checked="" type="checkbox"/> ON LABEL <input type="checkbox"/> ON MATERIAL ACCOMPANYING PRODUCT	6. MANNER IN WHICH LABEL IS AFFIXED TO PRODUCT <input checked="" type="checkbox"/> LITHOGRAPH <input type="checkbox"/> OTHER (Specify) <input checked="" type="checkbox"/> PAPER GLUED <input checked="" type="checkbox"/> STENCILED

## SECTION IV

1. CONTACT POINT (Complete items directly below for identification of individual to be contacted, if necessary, to process this application).		6. DATE APPLICATION RECEIVED (Stamped)
NAME  Kelly J. Parker		
TITLE Regulatory Specialist	TELEPHONE NO. (Include Area Code) 214/888-8726	
2. SIGNATURE <i>Kelly J. Parker</i>	3. TITLE Regulatory Specialist	
4. TYPED NAME Kelly J. Parker	5. DATE SIGNED 9/12/89	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Ms. Kelly J. Parker  
Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive  
Dallas, TX 75234

160 / 255036  
11 / 225223

Dear Ms. Parker:

Subject: Zoecon RF-342 Emulsifiable Concentrate  
EPA File Symbol 2724-UET  
Your Submission Dated June 9, 1988

The application for registration of the subject product has been reviewed against the data requirements for registration of pesticides, Part 158 of Title 40 of the Code of Federal Regulations, and the data compensation procedures established by Pesticide Registration (PR) Notice 85-3 of May 14, 1985.

The following deficiencies must be corrected before this application can be given further consideration.

Please provide the requested information for the following items:

1. Please provide two copies of the chemical identity of all components, Material Safety Data Sheet, and CAS Numbers of:



2. Please update the label storage and disposal statement per PR Notice 83-3 or 84-1. Use separate subheadings for storage, pesticide disposal, and container disposal.
3. Since your data matrix does not give the dielectrical breakdown voltage, you must add the following to the use directions (until you submit test data):

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

52320:I:Nelson:C.Disk:KENCO:07/28/89:CL:VO:EK:CT

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

*Still need them*

4. Corrosion characteristics data must be submitted.
5. Your labeling makes reference to areas that are clearly designated as U.S. Department of Agriculture (USDA) meat and poultry processing plants. Before we can give your product further consideration for conditional registration you must either:
  - a. File a separate application with USDA to obtain approval in such processing plants, in which case the label wording should be changed to reflect USDA acceptance, or
  - b. Qualify your site designation to exclude USDA meat and poultry processing plants.

You must submit your application to:

Mr. Charles Edwards  
Compound Evaluation Laboratory  
Scientific Services, FSQS  
Food Ingredient Assessment Division  
U.S. Department of Agriculture  
Building 306, BARC - East  
Beltsville, MD 20705  
Telephone: (301) 344-2566

Submit a copy of the approved application to EPA for your file.

Results of the Tolerance/Exemption Review

- 1a. All of the inert ingredients in RF-209 Cockroach Growth Regulator are cleared under 40 CFR 180.1001.
- 1b. If the intent of the proposed labeling is to limit application to food areas other than where food is served (i.e., food service establishments) then you should clarify the proposed labeling to specify that applications are not permitted in food service establishments.
2. Although no plant or animal metabolism studies for hydroprene were submitted in conjunction with the currently proposed use in food handling establishments, by analogy to methoprene, an IGR which is structurally related to hydroprene, the Agency can conclude, for the purpose of the currently proposed use, that the residue of concern is hydroprene per se.
3. Zoecon Method No. 307, although subjected to limited validation, appears to be adequate for the generation of hydroprene residue data on the food items tested. However, the method must undergo successful validation at the EPA laboratory in Beltsville, MD before a tolerance may be granted. You should send the hydroprene

analytical reference standard along with a Material Safety Data Sheet to:

Mr. Terry Bundy  
U.S. EPA Environmental Research Center  
Pesticide and Industrial Chemicals Repository  
U.S. Environmental Protection Agency  
2 Triangle Drive  
Research Triangle Park, NC 27709

In addition, to meet the requirements set forth in 40 CFR 158.240 and further addressed in 51 FR 187:34249-50 (September 26, 1986), you must develop data to determine the applicability of FDA multiresidue methodology in monitoring hydroprene residues in foods. These protocols are available from NTIS under order number PB86203734/AS. Attached to this review are a decision tree for multiresidue method testing, some FDA suggestions for improving data from FDA multiresidue trials, and an FDA note regarding the availability of charcoal for use in FDA protocols.

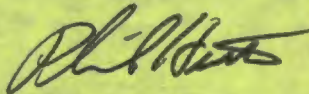
- 4a. The submitted food item residue data for hydroprene cannot be used as a basis for establishing the proposed food additive tolerance of 1.5 parts per million, since the generated data do not reflect maximum residues likely to result from the proposed Section B label use pattern for Zoecon RF-209 Cockroach Growth Regulator in food handling establishments (see Comments/Conclusions in the enclosed review).
- 4b. You should be advised that EPA does not set food additive tolerances based on average residues obtained from an exaggerated (3X) application rate which are then normalized to an equivalent 1X rate. Food additive tolerances are established on the basis of the highest observed residue values in or on representative food commodities following treatment at the proposed 1X label rate.
- 4c. Although requested in the Dietary Exposure Branch August 2, 1985 memorandum, you did not provide storage stability data for food samples obtained in the submitted residue study. Food samples were stored up to 11 months at -20 °C prior to analysis. The date the residue study was conducted was also not provided.
- 4d. The Agency recommends that you submit a new residue study simulating treatment of food handling establishments with Zoecon RF-209 EC as a fogger treatment at the proposed label (1X) use rate. An additional separate fogger application may also be conducted at a 3X rate. The same food items, exposed in the same manner as in the current study should be included in the new residue study; however, the Agency recommends that food samples exposed for 30 minutes should be sampled 1 and 8 hours

following application. If needed, you should then repropose food additive tolerances to cover maximum expected residues on various food items exposed at the proposed use rate. Additionally, in conjunction with the new residue study, you will need to supply documented storage information as well as storage stability data which reflect the conditions (i.e., temperature, length of time, etc.) under which samples were stored.

Please find enclosed a copy of the residue chemistry review for food additive tolerances.

This application will be kept open for a period of 75 days to give you an opportunity to correct the deficiencies listed above. If you find that you need more time to satisfy the requirements, you should request an extension and commit yourself to satisfy the deficiencies within a reasonable stated period of time. If you do not comply with this procedure, the Agency may administratively withdraw your application from further consideration, and retire this file without further notice to you in accordance with the policy established by PR Notice 75-4 of August 27, 1975. Once this is done you will have to submit a complete new application should you wish to pursue the registration of your product after the application has been withdrawn.

Sincerely yours,



Phil Hutton  
Product Manager (17)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)

Enclosures

## CHEMISTRY CHECKLIST CONT'D

## 9. Data Matrix Requirements

- ☐ a) Statement of Composition - a complete description of the manufacturing/formulation process. Describe equipment used, mixing time, temperature etc.
- ☐ b) Discussion of Formation of [Unintentional] Ingredients - a brief description of impurities formed during the manufacturing/formulation process, in packaging, or during storage. If you do not expect any impurities during these stages, please so state.
- ☐ c) Certification of Limits - upper and lower limits of each active and individually added inert component. The lower limit for the actives, must be the same as the label claim in pure active ingredient form.
- ☐ d) Analytical Method - provide the methods used to analyze for the active ingredients.
- ☐ e) Color - in common terms.
- ☐ f) Physical State - e.g. solid, liquid, pressurized liquid, etc.
- ☐ g) Odor - in common terms.
- ☐ h) Density - e.g. lbs/gallon for liquids or lbs/cu. ft. for solids.
- ☐ i) pH - provide pH of product or pH of a specified water dilution.
- ☐ j) Oxidizing or Reducing - note these characteristics if any.
- \* ☐ k) Flammability - flash point/flame extension.
- ☐ l) Explosibility - note these characteristics if any.
- ☐ m) Storage Stability - the formulated product must be analyzed for its active ingredient at time zero and during a year of storage. The storage should be in warehouse conditions of temperature and humidity and stored in similar containers you will be using in the trade.  
Note: For the Storage Stability study you cannot reference the concentrate you are using to formulate your product.
- ☐ n) Viscosity - can be expressed in centipoise or centistokes.
- ☐ o) Miscibility - note these characteristics if product is an emulsifiable liquid and mixed with oil.
- ☐ p) Corrosion Characteristics - this information can be noted during the storage stability study.
- ☐ q) Dielectric Breakdown Voltage - for products used near electrical equipment.

obj. JPK 9-22-88

Note: 1) Until your dielectric strength data shows otherwise it is safe to use near or on electrical equipment, warning on label is needed.

2) We note the rest of storage stability data will be submitted within 6-12 mos. of your test starting date. Corrosion characteristics data should be submitted also.

Reg. # 2724-UET Product Zecon RF-342 Emuls. Conc.  
Rec. # \_\_\_\_\_

PRODUCT CHEMISTRY CHECKLIST

Please provide the requested information for the following checked items:

1. ☐ Submit the product specific product chemistry and the data matrix for your product. Your product is not sufficiently similar to the product you referenced.
2. ☐ On the Confidential Statement of Formula (CSF) please provide the following:
- ☐ a) Provide pH of product or pH at a specified water dilution.
  - ☐ b) density of product
  - ☐ c) flash point of product
  - \*☐ d) flash point of product with the propellant.
  - ☐ e) flame extension of product including flashbacks if noted
  - ☐ f) Provide the upper and lower Certified Limits based on the pure active ingredients rather than the technical or concentrate.  
Note that the lower limit of the active must be the same as the label claim in pure active form.
  - ☐ g) Provide upper and lower Certified Limits of the individually added inerts.
  - ☐ h)
  - ☐ i)
3. ☐ Based on the current CSF dated \_\_\_\_\_ your product will not meet the label claim for the active ingredient. Please revise the label or the CSF so the information agrees.
4. ☒ Please provide the chemical identity of all components, MSDS and CAS #s of: (two copies reqd)
- 1) [REDACTED]
  - 2) [REDACTED]
  - 3) [REDACTED]
- The supplier may contact us directly referencing your file symbol/EPA Reg. # in their response.
- [REDACTED]
- [REDACTED]
5. ☒ Please update the label Storage and Disposal Statement per PR 83-3 or PR-84-1.  
*USE SEPARATE SUB-HEADINGS FOR STORAGE, PESTICIDE DISPOSAL*
6. ☐ Add a footnote to the label ingredient statement indicating: *add container disposal*  
Contains petroleum distillates, xylene, xylene range aromatic solvent
7. ☐ Add the heading PHYSICAL OR CHEMICAL HAZARDS to the label and the appropriate statement. See 40 CFR 162.10
8. ☒ Since your data matrix does not give a dielectrical breakdown voltage, you must add the following to the use directions:  
Do not use this product in or on electrical equipment due to the possibility of shock hazard. *(UNTIL YOUR SUBMISSION OF TEST DATA)*
9. ☐ Solvent used is not considered an active ingredient so either report it under inert ingredients on the label or provide the registration no. for the source product and justify its insecticidal properties.

(see back page)

# ZOECON RF-342

## EMULSIFIABLE CONCENTRATE

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
Food Handling Establishments

### ACTIVE INGREDIENTS:

(S)-Methoprene [Isopropyl(2E,4E,7S)-11-methoxy- 3,7,11-trimethyl-2,4-dodecadienoate].....	32.8%
INERT INGREDIENTS:.....	67.2%
TOTAL.....	100.0%

This product contains 2.5 lb/gallon (300 grams/liter)  
(S)-methoprene active ingredient.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See Back Panel for Additional Precautionary Statements.

**NET CONTENTS:**

**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in mechanical foggers and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

### PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**Method, Rate and Timing of Application:** Do not apply directly to food or tobacco being processed. Cover or remove any food or tobacco and processing equipment during application. After spraying, wash all equipment, benches, shelving, etc., where food or tobacco will be handled with potable water.

**Application with Mechanical Chemical Foggers:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water or food-grade oil as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1,000 square feet. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

**Food Handling Establishments:** Zoecon RF-342 is intended for use within industrial, institutional and commercial buildings. In food handling areas of such establishments, applications may be made by mechanical ULV fogging, spot treatment, or crack and crevice application. Food areas include areas for receiving, storage, packing (canning, bottling, wrapping, boxing), preparing, edible waste storage, and enclosed processing systems (mills, edible oils, syrups). Do not apply Zoecon RF-342 directly to food being processed. Cover or remove all food during application. All food processing surfaces must be covered during treatment or thoroughly cleaned before using. After application thoroughly wash all equipment, benches, shelving, etc. where food may be handled.

Zoecon RF-342 is authorized by the USDA for use in federally inspected meat and poultry plants.

**STORAGE & DISPOSAL** Store in a cool, dry place. Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. [Metal Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. [Plastic Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. [Glass Containers]: Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

### WARRANTY AND CONDITIONS OF SALE

Zoecon Corporation warrants that this product conforms to the chemical description on the label and is useful for the control of insect pests as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied.

Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive, Dallas, Texas 75234

EPA Reg. No. 2724-  
U.S. Patents 3,904,662 & 3,912,815  
0568A:0118E:0007E

EPA Est. 55947-CA-1  
Made in USA  
© 1988 Zoecon



U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDE PROGRAM (TS-767)  
WASHINGTON, D.C. 20460

APPLICATION FOR PESTICIDE:

☒ REGISTRATION  
☐ AMENDMENT

Form Approved OMB No. 2000-0012

Please read instructions  
on reverse before com-  
pleting.

SECTION I

1. COMPANY/PRODUCT NO. 2724-UET	2. DATE JUN 09 1988	3. PRODUCT MANAGER Phil Hutton (17)	4. PROPOSED CLASSIFICATION <input checked="" type="checkbox"/> GENERAL <input type="checkbox"/> RESTRICTED
5. NAME AND ADDRESS OF APPLICANT (Include ZIP Code)  Zoecon Corporation A Sandoz Company 12200 Denton Drive Dallas, Texas 75234  <input type="checkbox"/> CHECK IF THIS IS A NEW ADDRESS			

SECTION II

1. SUBJECT OF AMENDMENT  <input type="checkbox"/> RESUBMISSION IN RESPONSE TO AGENCY LETTER DATED _____ <input type="checkbox"/> FINAL PRINTED LABEL IN RESPONSE TO AGENCY LETTER DATED _____ <input type="checkbox"/> OTHER (explain below)
--

SECTION III

1. WILL THIS PRODUCT BE PACKAGED IN:  CHILD-RESISTANT PACKAGING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO UNIT PACKAGING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If YES, unit pkg. wt. _____ No. per container _____ WATER-SOLUBLE PACKAGING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If YES, pkg. wt. _____ No. per container _____		2. TYPE OF CONTAINER <input checked="" type="checkbox"/> METAL <input checked="" type="checkbox"/> PLASTIC <input checked="" type="checkbox"/> GLASS <input type="checkbox"/> PAPER <input type="checkbox"/> OTHER (Specify)
3. LOCATION OF NET CONTENTS <input checked="" type="checkbox"/> LABEL <input type="checkbox"/> CONTAINER	4. SIZE(S) OF RETAIL CONTAINER 1 oz. to 128 oz.	
5. LOCATION OF LABEL DIRECTIONS <input checked="" type="checkbox"/> ON LABEL <input type="checkbox"/> ON MATERIAL ACCOMPANYING PRODUCT	6. MANNER IN WHICH LABEL IS AFFIXED TO PRODUCT <input checked="" type="checkbox"/> LITHOGRAPH <input type="checkbox"/> OTHER (Specify) <input checked="" type="checkbox"/> PAPER GLUED <input checked="" type="checkbox"/> STENCILED	

SECTION IV

1. CONTACT POINT (Complete items directly below for identification of individual to be contacted, if necessary, to process this application). NAME Kelly J. Parker TITLE Regulatory Specialist TELEPHONE NO. (Include Area Code) 214/888-8726			6. DATE APPLICATION RECEIVED (Stamped)  JUN 09 1988
2. SIGNATURE Kelly J. Parker		3. TITLE Regulatory Specialist	
4. TYPED NAME Kelly J. Parker		5. DATE SIGNED JUN 09 1988	

**Zoecon Corporation**

A SANDOZ Company

12005 Ford Road, Suite 800, Dallas, Texas 75234-7296, (214) 243-2321

June 9, 1988

Mr. Phil Hutton  
Product Manager (17)  
Insecticide - Rodenticide Branch  
Registration Division (TS-767C)  
U.S. Environmental Protection Agency  
Crystal Mall, Building 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

RE: Zoecon RF-342 Emulsifiable Concentrate  
Application for New Registration, Proj. #T87-7

Dear Mr. Hutton:

Enclosed, by reference or submission, are data to support registration of the subject product. This application includes the following volumes of data:

Volume I: Physical/Chemical Data - End-Use Product

Volume II: Study of Methoprene Residues in Representative  
Food Commodities Resulting from Exposure to Zoecon  
RF-209 Fogger

RF-342 Emulsifiable Concentrate is a biochemical pesticide product for use in tobacco processing and food handling establishments to control a variety of insect pests including the Cigarette beetle, Tobacco moth, Sawtooth grain beetle, Confused flour beetle, and the Warehouse beetle.

Zoecon RF-342 is essentially identical to FZ-515876, EPA Reg. No. 2724-405. The basic difference between the two products is in the isomeric composition of methoprene. Zoecon RF-342 contains (S)-methoprene; FZ-515876 contains racemic methoprene. The percentage of (S)-methoprene in RF-342 is one-half that of racemic in FZ-515876. Since (S)-methoprene is twice as active as racemic, the rate of activity of methoprene in the RF-342 is identical to the currently registered FZ-515876.

Zoecon RF-342 has also been formulated to contain only inert cleared for food use and not on a List of Toxicological Concern. A description of each inert and its regulatory status is provided in the Product Chemistry section (Volume I) of this application. Letters authorizing reference of the EPA files for these inerts are being forwarded by the inert suppliers.

### Product Chemistry

A stability study is being conducted at room temperature and 50 C. An interim report of the data shows the product is stable at 50 C (room temperature data are not available at this time). A full report will be provided as a condition of the registration.

The Confidential Statements of Formula are provided on EPA form 8570-4 and list the active and inert ingredients. We have deleted the lines on the form order to have adequate room to list all the ingredient information. Upper and lower certified limits were derived according to the standard certified limits described in 40 CFR 158.175, published in the Federal Register 53 (86) p. 15997.

### Residue Data

According to the current regulations and guidelines, this application does not require residue data, a petition for tolerance or a petition for an exemption from tolerance.

The regulations provide, under 40 CFR 158.165(b)(i), that "residue chemistry data requirements shall apply to biochemical pesticide products when any one or more of the following conditions apply:

- (A) Tier II or III toxicology data are required.
- (B) The application of the product exceeds 0.7 ounces (20 grams) active ingredient per acre per application.
- (C) The application rate of the product exceeds a level determined to be comparable to 0.7 ounces active ingredient per application but the application rate is not expressible in terms of ounces per acre per application."

Tier II or III toxicity data were not required on (S)-methoprene. Furthermore, application of RF-342 does not exceed a level comparable to 0.7 ounces (20 grams) active ingredient per acre per application. Zoecon RF-342 is applied indoors in food handling establishments at a rate of 0.28864 grams per 1,000 square feet per application. This rate, when compared to an acreage application is almost half the 20 gram rate, at 12.57 grams per acre per application (see calculation below). Therefore, residue chemistry data would not be required for food handling clearance.

#### Calculation:

\*S-methoprene in RF-342 is applied at a rate of 1 milliliter per 1000 square feet.

\*RF-342 contains 32.8% S-methoprene.

\*The density of RF-342 is 0.88 grams per milliliter.

\*One acre is equivalent to 43,560 square feet.

$$\frac{1 \text{ ml}}{1000 \text{ sq ft}} \times \frac{32.8 \text{ g}}{100 \text{ g}} \times \frac{.88 \text{ g}}{\text{ml}} = \frac{0.28864 \text{ g S-methoprene}}{1000 \text{ sq ft}}$$

Thus,

$$\frac{0.28864}{1000 \text{ sq ft}} \times \frac{43,560 \text{ sq ft}}{1 \text{ acre}} = 12.57 \text{ g / acre per application}$$

The current guidelines (153-3(a)(1)) state, "a petition for a tolerance or for an exemption from the requirement of a tolerance is required...when the following conditions are met:

- (i) The product is intended for use on food or feed crops or its use is expected to result in residues in or on food or feed; and
- (ii) The rate of application exceeds 0.7 ounces (20 grams) of the biochemical (active ingredient) per acre per application."

Again, these conditions aren't met because the rate of application of (S)-methoprene in the proposed product is less than 20 grams per acre per application. Application of RF-342 would also not result in residues in food or feed, as discussed below (153-3 (a)(3)).

Further, Part 153-3(a)(2) states that residue data requirements will be determined on a case-by-case basis for biochemicals applied directly to food or feed and for biochemicals with application rates not expressable in ounces per acre per application.

Zoecon RF-342 is not applied directly to food or feed and the application rate can be expressable in terms of ounces/grams per acre per application.

Finally, part 153-3(a)(3) of the guidelines states that, "residue data will not be required and an exemption from the requirement of a tolerance will be recommended for products intended for use on food or feed crops or for uses expected to result in residues in or on food, or feed, when the following conditions are met:

- (i) Toxicology data developed from Tier I testing ...indicate that testing at Tier II is not required; and
- (ii) The rate of application is equal to or less than 20 grams of biochemical (active ingredient) per acre per application."

We do meet the conditions, 3(i) and 3(ii); however, use of the product would not result in residues in food or feed.

The proposed label states that the product is not to be applied directly to food being processed. The label directs the user to cover or remove any

food during application, to cover all food processing surfaces during treatment or to thoroughly cleanse before using, and to wash all equipment, benches, shelving, etc. where food may be handled after application.

We are not requesting a tolerance or an exemption from tolerance because the label directions ensure that the use of RF-342 will not result in substantive residues in food or feed and (S)-methoprene, a biochemical, is applied at less than 20 grams per acre per application.

Although residue chemistry data are not required, a simulated food handling establishment study is provided for your reference in Volume II. This study was conducted with FZ-515876 since it was originally planned for food-use development. Please note that the rate of racemic methoprene applied in the study is six times the application rate for (S)-methoprene in the proposed product. The residue data are presented with respect to (S)-methoprene in Appendix 6. This presentation supports the clearance of (S)-methoprene in food handling establishments. Appendix 7 provides a summary of the extensive toxicology data available on methoprene (both racemic and the (S)) for your reference.

#### Toxicology

Toxicology data described under Tier I of Part 158.165(c) are referenced. In addition, Appendix 7 of the residue study (Volume II) presents a summary of the toxicology data available on methoprene as noted above.

Because the toxicity of (S)-methoprene is equivalent to that of racemic methoprene and because (S)-methoprene is used at half the rate, the conversion from racemic methoprene to (S)-methoprene would not change the toxicity profile/category of the end-use product. The change in the formulation to incorporate only food-grade inert ingredients that are not on a list of toxicological concern would also not affect the end-use toxicity category. We are currently conducting toxicity studies on the proposed product in accordance with our company policy to have data on every product we sell. We will submit these studies to the Agency upon completion.

#### Label

The proposed product label is the same as the label currently on file for FZ-515876 with the following exceptions:

1. We have included the Warehouse beetle as a target pest. Data shows that methoprene is effective against the Trogoderma species of beetles. The Warehouse beetle is the common Trogoderma species found in label use-areas. All other pests listed are currently on the FZ-515876 label.
2. The precautionary language has been updated to comply with current guideline requirements. The language is now more comprehensive.

3. We've simplified the dilution statement under "Application as an Aqueous Spray". The statement directs the user to dilute the product at 1 milliliter per 1 gallon rather than 10 milliliters per 10 gallons. This is consistent with the application directions, stated as 1 gallon per 1,000 square feet.

4. We've added the following directions for use in food handling establishments:

"Food Handling Establishments: Zoecon RF-342 is intended for use within industrial, institutional and commercial buildings. In food handling areas of such establishments, applications may be made by mechanical ULV fogging, spot treatment, or crack and crevice application. Food areas include areas for receiving, storage, packing (canning, bottling, wrapping, boxing), preparing, serving, edible waste storage, and enclosed processing systems (mills, edible oils, syrups). Do not apply Zoecon RF-342 directly to food being processed. Cover or remove all food during application. All food processing surfaces must be covered during treatment or thoroughly cleaned before using. After application thoroughly wash all equipment, benches, shelving, etc. where food may be handled."

5. The storage and disposal statement has been updated in accordance with PR Notice 83-3.

#### Efficacy

Under EPA's current policy of not requiring submission of efficacy data, none are being referenced or submitted at this time.

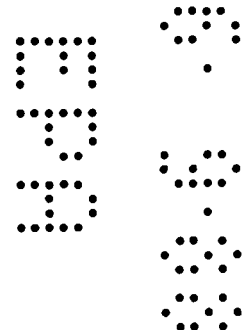
EPA's clearance of (S)-methoprene for use in food handling establishments is in the public interest. The toxicological profile of methoprene, a biochemical pesticide is well established. (S)-methoprene offers a safer alternative to use of conventional pesticides in food handling establishments.

Best Regards,



Kelly J. Parker  
Regulatory Specialist  
(800)527-0512

dianexfood/lgw



Study Title Page

Physical/Chemical Data - End-Use Product

Data Requirement

40 CFR 158.165(a)

Author

George J. Junginger

Completed On

January 15, 1988

Performing Laboratory

Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive  
Dallas, Texas 75234

Laboratory Project ID

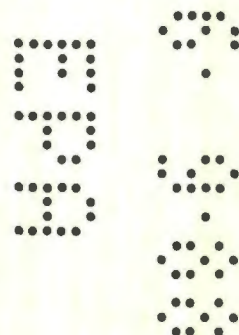
Project T87-7

Volume of Submission

Volume I

Page 1 of 12

3RF342.DOC



## STATEMENT OF CONFIDENTIALITY CLAIM

Information claimed confidential on the basis of its falling within the scope of FIFRA section 10(d)(1)(A), (B), or (C) has been removed to a confidential appendix, and is cited by cross-reference number in the body of the study. Further, this document is proprietary and the information contained herein should not be reviewed, abstracted, or used by any person without the express consent of Zoecon Corporation, A Sandoz Company, except that the information may be used by personnel of the EPA as necessary to carry out the requirements of the Agency (EPA).

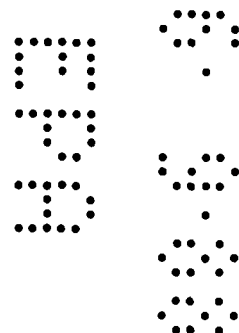
Company: Zoecon Corporation, A Sandoz Company

Company Agent: Kelly J. Parker

Date: 9 June 1988

Title: Regulatory Specialist

Signature: Kelly J. Parker



# ZOECON RF-342

## EMULSIFIABLE CONCENTRATE

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
Food Handling Establishments

### ACTIVE INGREDIENTS:

(S)-Methoprene [Isopropyl(2E,4E,7S)-11-methoxy- 3,7,11-trimethyl-2,4-dodecadienoate].....	32.8%
INERT INGREDIENTS:.....	67.2%
TOTAL.....	100.0%

This product contains 2.5 lb/gallon (300 grams/liter)  
(S)-methoprene active ingredient.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See Back Panel for Additional Precautionary Statements.

NET CONTENTS:

**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in mechanical foggers and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

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Warehouse beetle (*Trogoderma* spp.)

### PRECAUTIONARY STATEMENTS

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**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**Method, Rate and Timing of Application:** Do not apply directly to food or tobacco being processed. Cover or remove any food or tobacco and processing equipment during application. After spraying, wash all equipment, benches, shelving, etc., where food or tobacco will be handled with potable water.

**Application with Mechanical Chemical Foggers:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water or food-grade oil as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1,000 square feet. Use spray equipment to achieve uniform treatment.

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Zoecon Corporation  
A Sandoz Company  
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0588A-0118E-0007E

EPA Est. 55947-CA-1  
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# ZOECON RF-342

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An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
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INERT INGREDIENTS:..... 67.2%  
TOTAL..... 100.0%

This product contains 2.5 lb/gallon (300 grams/liter)  
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NET CONTENTS:

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**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**Method, Rate and Timing of Application:** Do not apply directly to food or tobacco being processed. Cover or remove any food or tobacco and processing equipment during application. After spraying, wash all equipment, benches, shelving, etc., where food or tobacco will be handled with potable water.

**Application with Mechanical Chemical Foggers:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water or food-grade oil as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1,000 square feet. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

**Application as an Aqueous Spray:** Prepare a diluted spray solution by adding 1 ml of Zoecon RF-342 to 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Repeat application as required.

**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

**Food Handling Establishments:** Zoecon RF-342 is intended for use within industrial, institutional and commercial buildings. In food handling areas of such establishments, applications may be made by mechanical ULV fogging, spot treatment, or crack and crevice application. Food areas include areas for receiving, storage, packing (canning, bottling, wrapping, boxing), preparing, edible waste storage, and enclosed processing systems (mills, edible oils, syrups). Do not apply Zoecon RF-342 directly to food being processed. Cover or remove all food during application. All food processing surfaces must be covered during treatment or thoroughly cleaned before using. After application thoroughly wash all equipment, benches, shelving, etc. where food may be handled.

Zoecon RF-342 is authorized by the USDA for use in federally inspected meat and poultry plants.

**STORAGE & DISPOSAL:** Store in a cool, dry place. Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. [Metal Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. [Plastic Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. [Glass Containers]: Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

### WARRANTY AND CONDITIONS OF SALE

Zoecon Corporation warrants that this product conforms to the chemical description on the label and is useful for the control of insect pests as described herein. Neither Zoecon nor the seller makes any other warranty, express or implied.

Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive, Dallas, Texas 75234

EPA Reg. No. 2724-  
U.S. Patents 3,904,662 & 3,912,815  
0588A:0118E:0007E

EPA Est. 55947-CA-1  
Made in USA  
© 1988 Zoecon

# ZOECON RF-342

## EMULSIFIABLE CONCENTRATE

An Insect Growth Regulator for the Control of  
Insect Pests in Tobacco Processing and  
Food Handling Establishments

### ACTIVE INGREDIENTS:

(S)-Methoprene [Isopropyl(2E,4E,7S)-11-methoxy- 3,7,11-trimethyl-2,4-dodecadienoate].....	32.8%
INERT INGREDIENTS:.....	67.2%
TOTAL.....	100.0%

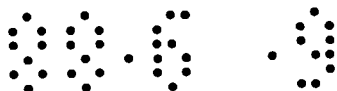
This product contains 2.5 lb/gallon (300 grams/liter)  
(S)-methoprene active ingredient.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See Back Panel for Additional Precautionary Statements.

**NET CONTENTS:**



**INTRODUCTION:** Zoecon RF-342 is an emulsifiable formulation of the insect growth regulator methoprene. It is designed for use in mechanical foggers and as a concentrate for an aqueous emulsive spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead it interferes with the normal processes of insect development and prevents adult emergence. Zoecon RF-342, when used according to label directions, controls the following insects.

Almond moth (*Ephestia cautella*)  
Cigarette beetle (*Lasioderma serricorne*)  
Sawtooth grain beetle (*Oryzaephilus surinamensis*)  
Red flour beetle (*Tribolium castaneum*)  
Tobacco moth (*Ephestia elutella*)  
Indian meal moth (*Plodia interpunctella*)  
Lesser grain borer (*Rhyzopertha dominica*)  
Merchant grain beetle (*Oryzaephilus mercator*)  
Confused flour beetle (*Tribolium confusum*)  
Warehouse beetle (*Trogoderma* spp.)

### PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:** Harmful if inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not use or store near heat or open flame.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**Method, Rate and Timing of Application:** Do not apply directly to food or tobacco being processed. Cover or remove any food or tobacco and processing equipment during application. After spraying, wash all equipment, benches, shelving, etc., where food or tobacco will be handled with potable water.

**Application with Mechanical Chemical Foggers:** Apply Zoecon RF-342 as a mist or aerosol. Dilute with water or food-grade oil as required following the instructions of the spray equipment manufacturer. Apply Zoecon RF-342 at the rate of 1 ml per 1,000 square feet. Use spray equipment to achieve uniform treatment.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated area and ventilate before entry. Repeat application as required.

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**Mixing Instructions:** Partially fill the mixing container with water, add Zoecon RF-342, mix and complete filling with recommended quantity of water. Use diluted spray solution within 24 hours of mixing. Agitate before each use.

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### STORAGE & DISPOSAL

Store in a cool, dry place. Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. [Metal Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. [Plastic Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. [Glass Containers]: Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

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A Sandoz Company  
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© 1988 Zoecon

# ZOECON RF-342

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An Insect Growth Regulator for the Control of  
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See Back Panel for Additional Precautionary Statements.

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EPA Est. 55947-CA-1  
Made in USA  
© 1988 Zoecon

# DATA REQUIREMENTS LISTING

Zoecon RF-342 Emulsifiable Concentrate

DATE: JUN 09 1988

Application for New Registration

Active Ingredient: 32.8% (S)-Methoprene

Part 158.165(a) Biochemical Product Analysis Data Requirements

## Regulations

Part 158/

Guideline No.

Name of Test

Data

151-10	Product Identity & Disclosure of Ingredients	On Confidential Statement of Formula
151-11	Manufacturing Process	Description of materials and manufacturing process are provided in Volume I of this application.
151-12	Discussion of Formation of Unintentional Ingredients	There are no known reactions between the active ingredient and the other ingredients or the packaging. Therefore, the only source of impurities would be associated with the registered active ingredient and the inerts. Identifying information on the inerts is on file at the Agency or provided in connection with this application.
151-13	Analysis of Samples	Not applicable. Product is not produced by an integrated formulation system (Footnote (iii) 40 CFR 158.165(a)).
151-15	Certification of Limits	On the Confidential Statement of Formula.

Regulations  
Part 158/  
Guideline No.

Name of Test

Data

151-16 Analytical Method

Method is provided in Volume I of this application.

151-17 Physical & Chemical Characteristics

Data applicable to this end-use product is provided in Volume I of this application.

Color

Light amber, transparent ✓

Physical State

Liquid @ 20°C ✓

Odor

Faint, fruity ✓

Specific Gravity

0.88 @ 25°C ✓

pH

6.4 @ 20°C ✓

Flammability

131°F Flash ✓

Storage Stability

Provided following this page —

Viscosity

26 cps @ 20°C ✓

Miscibility

Completely miscible in water and food-grade oil. —

Corrosion Characteristics

No corrosion noted in storage. —

Dielectric Breakdown Voltage

Study in progress. Will be submitted upon completion. 0

151-18 Submittal of Samples

Not applicable. Product is not produced by an integrated formulation system (Footnote (iv) 49 CFR 158.165(a)).

# DATA REQUIREMENTS LISTING

Zoecon RF-342 Emulsifiable Concentrate

DATE: JUN 09 1988

Application for New Registration

Active Ingredient: 32.8% (S)-Methoprene

## Part 158.165(b) Biochemical Pesticides Residue Data Requirements

### Regulations

#### Part 158/

#### Guideline No.

#### Name of Test

#### Data

153-3

Chemical Identity

Refer to Confidential Statement of Formula provided with this application.

153-3

Directions for Use

Refer to label provided.

153-3

Magnitude of Residue

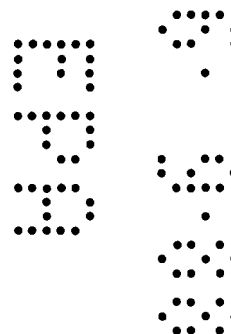
Meat/Milk/Poultry/Eggs

Not applicable; pesticide will not occur as a residue in livestock feed and will not be applied directly to livestock.

Food Handling

Tolerance or exemption from tolerance is not required; however, a relevant study is provided in Volume II of this application.

2RF342.DOC



# DATA REQUIREMENTS LISTING

Zoecon RF-342 Emulsifiable Concentrate

DATE: JUN 09 1988

Application for New Registration

Active Ingredient: 32.8% (S)-Methoprene

Part 158.165(c) Biochemical Pesticides Toxicology Data Requirements

Regulations  
Part 158/  
Guideline No.

Name of Test

Data

## Acute Testing

152-10	Acute Oral Toxicity	Reference data on file for FZ-515876, Apex 5E, Methoprene Technical and ( <u>S</u> )-Methoprene Technical, EPA Reg. No. 2724-405, 55947-88, 55947-90, 55947-109 respectively.
152-11	Acute Dermal Toxicity	Reference data on file for FZ-515876, Apex 5E, Methoprene Technical and ( <u>S</u> )-Methoprene Technical, EPA Reg. No. 2724-405, 55947-88, 55947-90, 55947-109 respectively.
152-12	Acute Inhalation Toxicity	Reference data on file for FZ-515876, Apex 5E, Methoprene Technical and ( <u>S</u> )-Methoprene Technical, EPA Reg. No. 2724-405, 55947-88, 55947-90, 55947-109 respectively.
152-13	Primary Eye Irritation	Reference data on file for FZ-515876, Apex 5E, Methoprene Technical and ( <u>S</u> )-Methoprene Technical, EPA Reg. No. 2724-405, 55947-88, 55947-90, 55947-109 respectively.

Regulations  
Part 158/  
Guideline No.

Name of Test

Data

152-14	Primary Dermal Irritation	Reference data on file for FZ-515876, Apex 5E, Methoprene Technical and (S)-Methoprene Technical, EPA Reg. No. 2724-405, 55947-88, 55947-90, 55947-109 respectively.
152-15	Hypersensitivity Study	Not applicable. Repeated skin contact does not result under normal conditions of use. Footnote (iii) 40CFR Part 158.165(c).
152-20	90-Day Feeding	Accession Number 093595, Page C-111.
	90-Day Dermal	Not applicable; use will not involve purposeful application to human skin or prolonged skin exposure.
	90-Day Inhalation	Not applicable; use will not result in repeated inhalation exposure at a concentration likely to be toxic.
	Teratogenicity	Not applicable; product use does not require a tolerance, or food additive regulation and would not result in significant exposure to female humans. Footnote (ix), 40 CFR 158.165. However this data can be referenced by Accession No. 242045, Page C-20 and C-49.

2RF342.DOC

DATA REQUIREMENTS LISTING

Zoecon RF-342 Emulsifiable Concentrate

DATE: JUN 09 1988

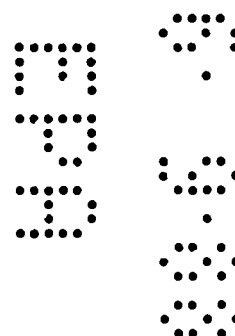
Application for New Registration

Active Ingredient: 32.8% (S)-Methoprene

Part 158.165(d) Nontarget Organism, Fate and Expression Data Requirements

Not applicable; Product is an indoor use biochemical pesticide with a low volume application. Its use would not result in terrestrial or aquatic exposure.

2RF342.DOC



DATA REQUIREMENTS LISTING

**JUN 09 1988**

Zoecon RF-342 Emulsifiable Concentrate

DATE: \_\_\_\_\_

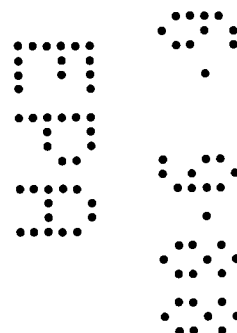
Application for New Registration

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Part 158.165(d) Nontarget Organism, Fate and Expression Data Requirements

Not applicable; Product is an indoor use biochemical pesticide with a low volume application. Its use would not result in terrestrial or aquatic exposure.

2RF342.DOC



**Zoecon Corporation**

A SANDOZ Company

12005 Ford Road, Suite 800, Dallas, Texas 75234-7296, (214) 243-2321

## TRANSMITTAL DOCUMENT

PRODUCT NAME: Zoecon RF-342 Emulsifiable Concentrate

TYPE OF SUBMISSION: Application for New Registration

COMPANY: Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive  
Dallas, Texas 75234

OFFICIAL: Kelly J. Parker  
Regulatory Specialist

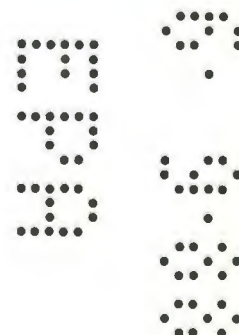
SIGNATURE: Kelly J. Parker

DATE: June 9, 1988

MRID NUMBER: \_\_\_\_\_

DESCRIPTION: K. Parker, 6/9/88: Physical/Chemical Data-  
End-Use Product, Zoecon Corporation, A Sandoz  
Company, Project T87-7, Unpublished.

K. Parker, 1/7/87: Study of Methoprene Residues  
In Representative Food Commodities Resulting From  
Exposure To Zoecon RF-209 Fogger, Zoecon Corporation,  
A Sandoz Company, Test No. 903-85, Unpublished.



ATTACHMENT A  
FORMULATOR'S EXEMPTION STATEMENT

EPA File Symbol or Product Registration Number: 2724-

Applicant's Name and Address: Zoecon Corporation, A Sandoz Company

12200 Denton Drive, Dallas, Texas 75234

As an authorized representative of the applicant for registration of the product identified above, I hereby certify that:

(1) Our product is an end-use product, and it contains the active ingredient(s) (S)-Methoprene

(2) Each active ingredient listed in paragraph (1) is present solely as the result of the incorporation into the product (during formulation or packaging) of another product which contains that active ingredient, which is registered under FIFRA Section 3, and which is purchased by us from another producer.

(3) Indicate by circling the appropriate text which paragraph applies:

(A) An accurate Confidential Statement of Formula for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).

OR

(B) The Confidential Statement of Formula dated \_\_\_\_\_ on file with the EPA is complete, current and accurate and contains the information requested on the current CSF form No. 8570-4. The registered source(s) of the active ingredient(s) listed in paragraph (1) is/are listed below.

Active Ingredient

Source: Product Name and Registration No.

Applicant's authorized representative:

Kelly J. Parker  
(Signature)

Kelly J. Parker

(Typed)

Dated: 9 June 1988

CERTIFICATION WITH RESPECT TO CITATION OF DATA

EPA File Symbol/Reg. No. 2724- Date of application JUN 09 1988

Name of Product Zoecon RF-342 Emulsifiable Concentrate

Applicant's Name and Address Zoecon Corporation

A Sandoz Company

12200 Denton Drive

Dallas, Texas 75234

1. This application is supported by all data submitted or cited in the application. In addition, if cite-all options are indicated, this application is supported by all data in the Agency's files that concern the properties or effects of this product or of any other product that is identical or substantially similar, and that is one of the types of data that would be required to be submitted if this application sought the initial registration of a product of identical or similar composition and intended uses under the data requirements in effect on the date of approval of this application.

2. I certify that, for each study cited in support of this application for registration that is an exclusive use study, I have obtained the written permission of the original data submitter to cite that study.

3. I certify that, for each study cited in support of this application for registration that is not an exclusive use study:

I have obtained the written permission of the original data submitter to cite that study; or

I have notified in writing the companies who have submitted data I have cited to support this application and have offered to: (a) Pay compensation for those data in accordance with section 3(c)(1)(D) and 3(c)(2)(D) of the Federal Insecticide, Fungicide and Rodenticide Act; and (b) Commence negotiations to determine which data are subject to the compensation requirement of FIFRA and the amount and terms of compensation due, if any. The companies I have notified are: (Check one)

☐ All companies listed on the Pesticide Data Submitters List for all active ingredients contained in my product (Cite-all method or cite-all option under Selective Method). (Also sign the General Offer to Pay Statement below.)

☒ Those companies who have submitted the studies which I have cited (Selective method)

Date JUN 09 1988

Signature Kelly J. Parker

Title Regulatory Specialist

General Offer to Pay: I hereby offer and agree to pay compensation to other persons, with regard to the approval of this application, to the extent required by FIFRA sec. 3(c)(1)(D) and 3(c)(2)(D).

Date \_\_\_\_\_

Signature \_\_\_\_\_

Title \_\_\_\_\_

# SANDOZ CROP PROTECTION

**Sandoz Crop Protection Corporation**

Corporate Headquarters  
1300 East Touhy Avenue  
Des Plaines, Illinois 60018  
312.699.1616

January 15, 1988

Mr. Phillip Hutton  
Product Manager 17  
Registration Division (TS-767-C)  
U.S. Environmental Protection Agency  
Crystal Mall Building #2 Room 207  
1921 Jefferson Davis Highway  
Arlington, Virginia 22202

SUBJECT: Authorization To Access Data  
APEX 5E, EPA Reg. No. 55947-88  
Methoprene Tech, EPA Reg. no. 55947-90  
(S)-Methoprene Tech, EPA Reg. No. 55947-109

Dear Mr. Hutton:

By copy of this letter Sandoz Crop Protection Corporation authorizes Zoecon Corporation, A Sandoz Company, to access any and all data submitted by Sandoz for registration of subject products to support registration of:

Zoecon RF-342 Emulsifiable Concentrate

If you have any questions regarding this authorization, please contact me directly at (312)390-3817.

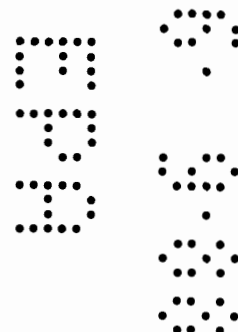
Sincerely,

SANDOZ CROP PROTECTION CORPORATION

*Ada M. Breaux*

Ada M. Breaux  
Manager, Biorational Registrations

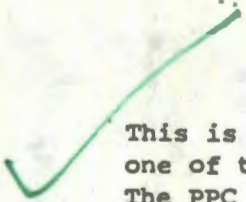
mw



P. Hutton

PM 17

RM 207



This is an accepted submission. One copy of the PPC diagnosis and one of the annotated bibliography are provided for your files. The PPC has already mailed out the submitter's copies of the two documents.

This is a partially accepted/rejected submission. A copy of the PPC diagnosis and of the annotated bibliography (if applicable) are provided for your files. A second copy is provided for your use in corresponding with the data submitter.

U. S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs

ZOECON INDUSTRIES, INC.  
12200 DENTON DRIVE  
DALLAS, TX 75234

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your transmittal of 06/09/88. Our staff has completed a preliminary analysis of the material. The results are provided as follows.

Your submittal was found to be substantially in compliance with the standards for submission of data contained in PR Notice 86-5, with the exception(s) noted below. A copy of your bibliography is enclosed, annotated with the Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents, and correct the noted exception(s) in future data submittals. If deficiencies were found which apply to your overall submission, they are described following this paragraph. If the deficiencies apply to specific studies, they are listed below following the applicable identification number or MRID. Thank you for your cooperation.

Any document which has been assigned a MRID has been accepted under PR Notice 86-5. If any comments related to a MRID appear on this report, they are provided for your information and reference when preparing future submissions.

If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

MRIDS 40653901 - 40653902 were all found to be deficient for the following reason/s:

Please include on each title page the guideline number(s) of the specific requirement(s) addressed by the study.

**Zoecon Corporation**

A SANDOZ Company

12005 Ford Road, Suite 800, Dallas, Texas 75234-7296, (214) 243-2321

TRANSMITTAL DOCUMENT

PRODUCT NAME: Zoecon RF-342 Emulsifiable Concentrate

TYPE OF SUBMISSION: Application for New Registration

COMPANY: Zoecon Corporation  
A Sandoz Company  
12200 Denton Drive  
Dallas, Texas 75234

OFFICIAL: Kelly J. Parker  
Regulatory Specialist

SIGNATURE:

*Kelly J. Parker*

DATE: June 9, 1988

MRID NUMBER:

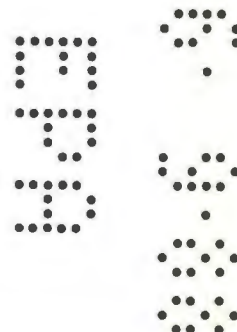
DESCRIPTION:

40653901

K. Parker, 6/9/88: Physical/Chemical Data-  
End-Use Product, Zoecon Corporation, A Sandoz  
Company, Project T87-7, Unpublished.

40653902

K. Parker, 1/7/87: Study of Methoprene Residues  
In Representative Food Commodities Resulting From  
Exposure To Zoecon RF-209 Fogger, Zoecon Corporation,  
A Sandoz Company, Test No. 903-85, Unpublished.



Record Number \_\_\_\_\_  
Reference Number \_\_\_\_\_  
Input Date \_\_\_\_\_

**CODING FORM FOR APPLICATIONS FOR REGISTRATION/AMENDMENTS**

File Symbol/Reg. No. 2724-VET PM 17 | 8 | Action Code \_\_\_\_\_

|10| Descriptor (Amend/Resubmissions only) \_\_\_\_\_

|5| Intrastate Call-in ☐ (Y) Yes |15| Child-resistant Packaging ☐ (C) Certification  
☐ (N) No ☐ (S) Service Person

|20| Registration Type:  
☐ (1) Conditional ☐ (2) Unconditional  
☐ (R) Non-residential Use Only  
☐ (N) Not-Applicable

|25| Proposed Classification: |30| Final Classification:

☐ (R) Restricted ☐ (R) Restricted  
☐ (G) General ☐ (N) Not Classified

|35| Date on Application: |04| EPA Received Date: |40| Date Received by PM  
0 | 6 | 0 | 9 | 8 | 8 | 0 | 6 | 0 | 9 | 8 | 8 | \_\_\_\_\_  
MO DAY YR MO DAY YR MO DAY YR

|80| Method of Support:

☐ (1) Cite-All ☐ (6) Owner Submission  
☐ (4) Not Applicable ☐ (7) Total Submission  
☐ (5) Not Submitted ☐ (8) Selective Method

Reviewers Requested:

RD  
PM  
PL  
CH  
EF

DATE SENT	DUE DATE	DATE RETURNED	RESPONSE CODE	RESPONSE DATE

|108| Status: \_\_\_\_\_

|115| FINAL Response ACTION Code \_\_\_\_\_ |120| Response \_\_\_\_\_  
MO DAY YR

75-DAY RESPONSE DUE DATE: ☐ (Y) Yes ☐ (N) No

# REGISTRATION DIVISION DATA REVIEW RECORD

Confidential Business Information — Does Not Contain National Security Information (E.O. 12065)

## 1. CHEMICAL NAME

2. IDENTIFYING NUMBER <b>2724-UET</b>	3. ACTION CODE <b>160</b>	4. ACCESSION NUMBER	TO BE COMPLETED BY PM
			5. RECORD NUMBER <b>224223</b>
			6. REFERENCE NUMBER
			7. DATE RECEIVED (EPA)
			8. STATUTORY DUE DATE
			9. PRODUCT MANAGER (PM) <b>POH - Pg</b>
			10. PM TEAM NUMBER

## 14. CHECK IF APPLICABLE

- |   |  |
|---|--|
| <input type="checkbox"/> Public Health/Quarantine | <input type="checkbox"/> Minor Use                         |
| <input type="checkbox"/> Substitute Chemical      | <input type="checkbox"/> Part of IPM                       |
| <input type="checkbox"/> Seasonal Concern         | <input type="checkbox"/> Review Requires Less Than 4 Hours |

## TO BE COMPLETED BY PCB

- |  |
|--|
| 11. DATE SENT TO HED/TSS<br><b>6-28-88</b> |
| 12. PRIORITY NUMBER<br><b>2</b>            |
| 13. PROJECTED RETURN DATE                  |

## 15. INSTRUCTIONS TO REVIEWER

- A. HED ☐ Total Assessment - 3(c)(5)  
☐ Incremental Risk Assessment - 3(c)(7) and/or E.L. Johnson memo of May 12, 1977.
- B. SPRD (Send Copy of Form to SPRD PM)  
☐ Chemical Undergoing Active RPAR Review  
☐ Chemical Undergoing Active Registration Standards Review

- C. ☐ BFSD  
D. ☐ TSS/RD  
E. ☐ Other

## F. INSTRUCTIONS

See application

## 16. RELATED ACTIONS

## 17. 3(c)(1)(D)

- ☐ Use Any or All Available Information ☐ Use Only Attached Data  
☐ Use Only the Attached Data for Formulation and Any or All  
☐ Available Information on the Technical or Manufacturing Chemical.

## 18. REVIEWS SENT TO

- |                              |                              |  |  |
|------------------------------|------------------------------|--|--|
| <input type="checkbox"/> TB  | <input type="checkbox"/> EEB | <input type="checkbox"/> EF            | <input checked="" type="checkbox"/> PL |
| <input type="checkbox"/> RCB | <input type="checkbox"/> EFB | <input checked="" type="checkbox"/> CH | <input type="checkbox"/> BFSD          |

19. To	TYPE OF REVIEW	NUMBER OF ACTIONS							
		Registration	Petition	EUP	SLN	Sec. 18	Inert	MNR. USE	Other
HED	TOXICOLOGY								
	ECOLOGICAL EFFECTS								
	RESIDUE CHEMISTRY								
	ENVIRONMENTAL DATA								
TSS	<input checked="" type="checkbox"/> CHEMISTRY <b>off JPK 9-22-88</b>								
	EFFICACY								
	<input checked="" type="checkbox"/> PRECAUTIONARY LABELING								
	ECONOMIC ANALYSIS								

Label Submitted  
to Application  
checked

21. ☒ Confidential  
Statement of  
Formula

22. ☐ Representative  
Labels Showing  
Accepted Uses  
Attached

23. Data Returned to RD  
(to be completed by  
HED)

24. Include an Original and 4 (four)  
Copies of This Completed Form  
for Each Branch Checked for  
Review.

